The $260 Million Dollar Question:

Will the State Automated Child Support System (SACCS) ever really work?

PREPARED BY THE STAFF OF:
Assembly Committee on Televising the Assembly and Information Technology

Honorable
Elaine White Alquist, Chair

California Legislature

Assembly Committee on Televising the Assembly and Information Technology

ELAINE WHITE ALQUIST
CHAIR

MEMBERS:
JIM MORRISSEY, VICE CHAIR
SHEILA JAMES KUEHL
HOWARD WAYNE
TOM WOODS

STAFF:
MICHAEL RAPPORT
Principal Consultant on Information Technology

DENISE PLANTS
Committee Secretary

April 30, 1997

The Honorable Pete Wilson, Governor
The Honorable Bill Lockyer, President pro Tempore of the Senate
The Honorable Cruz M. Bustamante, Speaker of the Assembly
State Capitol
Sacramento, California 95814

Dear Governor and Legislative Leaders:

When the Assembly Committee on Televising the Assembly and Information Technology convened for the first time this year, it represented a dawning of a new day for legislative oversight of our state's vast information technology infrastructure.

At that time, it was announced that our Committee was expanding its jurisdictional scope to become the primary repository in the Assembly for policy on government technology in the state of California. At long last, the Legislature was specifically empowering a standing committee to serve as the principal oversight authority over our state's information technology activities.

The members of this Committee resolved at that initial hearing to begin the process of ensuring that the people of California are reaping the rewards of our state's unmatched technological capacities. It became our mission to ensure that state government is not wasting hard-earned taxpayer dollars on high-priced computer projects that don't really work.

Under my direction, the Committee staff has, over the last few weeks, endeavored to fulfill that mission by analyzing the progress of the Statewide Automated Child Support System, the largest and most expensive state-run information technology system in our nation's history.

On behalf of the members of the Assembly Committee on Televising the Assembly and Information Technology, I present to you our report, entitled "The $260 Million Dollar Question: Will the Statewide Automated Child Support System (SACSS) ever *really* work?"

Respectfully submitted,

Elaine White Alquist

ELAINE WHITE ALQUIST
Chair

THE $260 MILLION DOLLAR QUESTION: Will the State Automated Child Support System (SACSS) ever <u>really</u> work?

Report from the staff of the Assembly Committee on Televising the Assembly and Information Technology

Honorable Elaine White Alquist, Chair

TABLE OF CONTENTS

EXECUTIVE SUMMARY

At the request and with the input of Assemblywoman Elaine White Alquist, chair of the Assembly Committee on Televising the Assembly and Information Technology, committee staff investigated the current status of California's problem-plagued Statewide Automated Child Support System, or SACSS. Staff findings have prompted Assemblywoman Alquist to call for a special oversight hearing on SACSS to be held on Tuesday, May 6, 1997, to determine if the system has a realistically viable future or, in the alternative, if it should be scrapped altogether.

BACKGROUND

SACSS is the largest and most expensive state-run single-unit information technology project in the United States. The projected costs of this project have ballooned from an initial estimate of $99 million in 1991 to $260 million in 1996. This year, the Health and Welfare Data Center (HWDC) has requested an additional $72.2 million to complete the project. At present, SACSS is considered "unusable" in many of 23 counties in which it has been deployed, and its scheduled expansion to other counties in the state has been delayed indefinitely.

SUMMARY OF FINDINGS

SACSS began in 1988 with a federal mandate to the states to develop a statewide automated child support enforcement system. The federal government agreed to pay for 90 percent of the development costs if the project were completed by September of 1995.

Since 1991, the year the Department of Social Services (DSS) first began developing SACSS, the project has been plagued with operational problems and cost overruns. In April of 1995, the Bureau of State Audits released a report criticizing DSS's management of another system, prompting the Governor to shift responsibility for SACSS to the HWDC. By September of 1995, SACSS had only been piloted in seven small counties and was nine months behind schedule. It was clear at that time that California would fail to meet the federal deadline for full deployment in all counties of September 30, 1995 (later extended to September 30, 1997).

HWDC worked to amend a flawed original contract with the vendor, Lockheed Martin Information Management Services Corporation, but the terms of the contract did not sufficiently protect the state in such a negotiation. Although Lockheed was to be paid over $100 million for the project, its liability for project failure was capped at a mere $4 million.

In February of 1996, the problems continued when HWDC attempted to install SACSS in Fresno County, the largest of the pilot counties. In assessing the breakdown, the state discovered that the SACSS application was unable to perform its basic business operations in a consistent fashion. Further, it was unable to connect to other systems, a key feature of the system.

Finally, in January of 1997, HWDC hired Logicon, an independent verification and validation vendor. One month later, Logicon identified over 1,400 problems with SACSS on the part of both the vendor and the state. Upon receiving the Logicon report, HWDC issued a letter dated February 26, 1997, advising the vendor of "the fundamental failure of the SACSS application to date and the resulting inability of counties to use the automated system to operate mandated child support enforcement activities." HWDC's written expression of concern that SACSS will *never* meet "established operational requirements" would seem to contradict its request for additional funding to "complete" the project (increasing total costs to $300 million).

The Legislature is now faced with the difficult issue of how to address the SACSS project and its accompanying problems. Currently, HWDC seeks increased funding for SACSS, but there is significant doubt, even among the parties involved, whether the system will ever function properly. Due to significant problems in the SACSS application, many of which could go undetected until the project is fully implemented, it is unclear whether the project will ever fulfill the mandate of the federal government or the child support enforcement needs of California's 58 counties.

Moreover, serious questions continue to be raised concerning the processes now in place to avoid wasting taxpayer dollars on high-priced system failures like the DMV. The Legislature must determine whether the Department of Information Technology is fulfilling its statutory mandate to terminate projects before they reach the point that SACSS appears to be in today.

PROLOGUE

"Is This Any Way to Run a Government?"

-- A 1994 Los Angeles Times headline on the doomed DMV project[i]

On April 25, 1994, Frank Zolin, director of the California Department of Motor Vehicles (DMV), testified at a legislative hearing that his agency had spent $44.3 million in taxpayer dollars on a computer modernization program that would never work.[ii] The issue arose after DMV had requested another $7.5 million to "scale down" the project. That request was put on immediate hold, and a public firestorm of controversy ensued.

The next day, Zolin announced that he was pulling the plug on the ill-fated project. "What happens in these kinds of projects (is) they kind of run away from the folks who are managing and the problems keep accumulating, almost geometrically," he said at the time.[iii]

And so began the unraveling of one of the most infamous examples of government waste in the history of the state of California. In the months that followed, the $50-million DMV debacle would derail the careers of two top state computer administrators, prompt numerous legislative hearings, and precipitate Zolin's abrupt resignation.[iv]

In response to the DMV fallout, the Wilson administration released a task force report in September of 1994 calling for a major overhaul of how the state of California buys and designs its computer systems. The centerpiece of the task force's blueprint for reform was a simple recommendation: the Governor should establish a cabinet-level position of Chief Information Officer (CIO) to oversee the state's information technology projects and empower that position with broad policy and operational authority.[v]

At a task force press conference, Governor Wilson proclaimed that "we need to bring government into the 21st Century -- not only in terms of technology, but in terms of making government more accountable and more cost effective for the people it's meant to serve."[vi]

On September 12, 1995, Governor Wilson appointed John Thomas Flynn as the state's first CIO. Flynn was assigned a list of specific responsibilities which, if accomplished, "would improve the state's ability to apply information technology in a cost-effective manner."[vii] Above all else, though, the new "information technology czar" was charged with initiating, suspending or terminating projects "based on whether the desired results were likely to be achieved."[viii]

Put simply, Flynn's primary objective as CIO was to avoid another DMV. Based on the findings of the staff of the Assembly Committee on Televising the Assembly and Information Technology relating to the Statewide Automated Child Support System, there remains serious doubts as to whether that objective has been fulfilled.

CHAPTER ONE: DMV ALL OVER AGAIN?

"People are setting up solutions based on pie-in-the-sky dreams that these computers will work and be hooked together and solve the problem. . . . It's not working."

-- Geraldine Jensen, President, Association for Children for Enforcement of Support, February 26, 1995[ix]

On June 23, 1992, John Healy, the interim director of the State Department of Social Services, announced that the federal government had approved a $75.5 million contract for automation of the state's child support enforcement program. The Statewide Automated Child Support System (SACSS) project was awarded to the Lockheed Martin Information Management Services Corporation (Lockheed).

"SACSS will have a tremendous long-term impact in terms of increased collections," said Healy. "The new system will eventually add as much as $11 million each month to the state's child support program, more than paying for itself while collecting substantially more child support for California's children."[x]

The optimistic Healy indicated that SACSS was the cornerstone of Governor Wilson's 10-point plan to improve California's child support program. "SACSS is a big step toward the Governor's goal of doubling child support collections in the next five years," he said. "We are pleased that automation of child support is a high priority in the Governor's plan."[xi]

In the United States, enforcement of court-ordered child support compliance is within the jurisdiction of the states, but, in the state of California, the district attorneys of the 58 counties administer and operate such systems through their family support offices. Those offices locate absent non-custodial parents and their assets, establish court orders for support, and collect payments as appropriate. Child support enforcement services are free to all Californians, but welfare recipients are required to apply for services in order to qualify for welfare payments.

The SACSS project was initially intended to interlink all of California's 58 counties and connect them with the database systems of state agencies such as the DMV, the Employment Development Department and the Franchise Tax Board, resulting in an dramatic increase in the location of absent parents (so-called "deadbeat dads") and their assets.

If SACSS functioned as intended, the enhanced tracking capabilities would make it more difficult to dodge the payment of child support by moving from county to county.

If SACSS functioned as intended, the state would be able to provide better service to participant parents at lower cost, as well as comprehensive account balance information to custodial and non-custodial parties.

And, if SACSS functioned as intended, the potential impact of statewide welfare reform efforts on families would be mitigated by the increased flow of child support monies.

But, SACSS -- the largest and most expensive state-run single-unit information technology system in our nation's history -- has <u>not</u> functioned as intended . . . even after six years in development and an expenditure of $82 million in state monies.

In fact, representatives of many of the 23 counties that have installed the system to date have complained that it is virtually "unusable."[xii] In December of last year, state officials halted the implementation and operation of SACSS, and an independent consultant hired to review the situation in January is considering whether to recommend scrapping SACSS altogether.

According to Robert A. Dell'Agostino, a principal fiscal and policy analyst for the Legislative Analyst's office, the system "is not performing in the counties where it's been implemented, and it's basically brought the project to a standstill."[xiii]

Indeed, the $260 million state computer system is currently in a state of disorder and disarray, so much so that, according to the <u>Los Angeles Times</u>, "many question whether California would be able to enforce some of the measures in Governor Wilson's welfare plan."[xiv]

Based on the committee staff's review of the system, it appears that SACSS is presently fraught with numerous weaknesses, including, but not limited to:

- the inability to produce vital legal information such as wage assignments;
- the continued erroneous computation of monthly support payments;
- the failure to connect with key record resources maintained by the DMV and the

Attorney General to locate absent non-custodial parents;

- the need for workers to manually "white-out" and retype corrections to reports and forms; and
- a general reputation for being slow, unreliable and overly complicated.

The problems with SACSS are so significant that San Francisco County has refused to continue using the system, choosing instead to revert to a computer system it had developed on its own prior to logging on to SACSS. Other counties that have already converted their paper files to computer files have no choice but to remain wedded to a system unable to perform basic accounting functions. Still other counties, such as Alameda County and Santa Clara County, have already developed internally-designed in-house systems and are disinclined to implement SACSS with its accompanying problems.

"We have advised the state that we cannot continue to operate indefinitely with the current defects in the statewide system," explained Ventura County District Attorney Michael Bradbury last December. "We're very concerned . . . that people have money they need to put food on the table."[xv]

"(SACSS) is cumbersome even if it works -- and it doesn't work," offered Humboldt County District Attorney Terry Farmer. "(Forcing California's counties to implement it) is like testing the B-1 Bomber by putting passengers on board."[xvi]

Despite the steady drumbeat of attacks on SACSS, it has not yet been determined whether the project, on which the state has already spent $82 million, is fixable. Even the state agency which manages SACSS has stated that it "is very concerned that the (SACSS) application may never meet established operating requirements."[xvii]

One thing, however, is certain. When it comes to information technology, the people of California expect to be at the forefront, not bringing up the rear. Yet, three whole years after the DMV project was first relegated to the scrap-heap, our state government appears to be guilty of repeating the same mistakes and falling behind the high-tech curve.

CHAPTER TWO: THE FACTS ABOUT SACSS

"My good computer system will be gone. I'm driving a Cadillac, and they're going to give me a Chevy."
-- Al Bucher, the director of Alameda County's successful in-house child support system, November 27, 1996[xviii]

At the very least, SACSS will cost at least $260 million to fully implement, if it can be salvaged at all. As of today, more than $82 million have been spent on the system, and, yet, the few counties that have implemented SACSS are reluctant or unable to use the system.

At this point, only 23 counties have attempted to install the system, primarily because significant operational problems have forced a curtailment of expansion plans. While continued snafus slow down the processing of child support cases in some counties, ongoing system delays threaten the entire state with significant financial losses. According to conditions set out by the federal government, if SACSS is not wholly operational by September 30, 1997, the state will relinquish millions of dollars in future federal reimbursement payments (see Appendix F). Clearly, California has entered the critical zone with SACSS, but it's important to understand how we got to that point:

In 1988, the federal government mandated that every state develop a single child support enforcement system to automate the burdensome paper process. The federal government agreed to pay an enhanced rate of 90% of the development costs (in contrast to the regular 66% share of costs) if the project was completed by September of 1995. California's Department of Social Services (DSS) began developing the system in 1991.

In April of 1995, the Bureau of State Audits released a report criticizing the management of the Statewide Automated Welfare System (SAWS) by DSS. Within days, Governor Wilson shifted responsibility for SAWS, SACSS and another major computer project from DSS to the Health and Welfare Data Center (HWDC) in an unprecedented vote of "no confidence" in DSS.

In September of 1995, seven small counties received SACSS as a pilot project, nine months behind schedule. It was clear at that time that California would not meet the federal deadline to deploy SACSS to all 57 counties (Los Angeles County is developing its own child support computer system) by September 30, 1995, in order to receive funding at the 90% level. (That deadline was later extended by the federal government to September 30, 1997.)

Many of the project's subsequent cost overruns can be traced back to a flawed procurement process, as well as the formation of the original contract between Lockheed and the state of California. For example, the contract language did not include specific tasks necessary to the success of the system. For this reason, HWDC initiated the process of substantially amending various terms of the contract, including the purchase of equipment, the amount of staff training, and scheduled updates of the system.

Agreed-upon amendments notwithstanding, though, Lockheed remained in the enviable position of enforcing a contract with few protections for the state, and, as a result, the state was forced to assume increased project costs caused by forgotten tasks and schedule slippage. By the time HWDC had concluded negotiations and amended the contract in October of 1995, the projected costs for SACSS had already soared from $173 million to over $260 million.

Of that $260 million price tag, over $100 million was to be paid directly to Lockheed. Inexplicably, the amended contract capped the vendor's liability for project failure at a meager $4 million.

CHAPTER THREE: 1,400 PROBLEMS, NO ANSWERS

"We're not being given a firm date when (SACSS) will be done. Even if we were given a firm date, frankly, I wouldn't believe it. The entire schedule has been a joke from beginning to end. I can't imagine anything being more messed up than this has been."

-- Sutter County District Attorney Carl Adams, February 17, 1995[xix]

In February of 1996, HWDC encountered significant problems when it attempted to install SACSS in Fresno County, the largest pilot county that would test the system. The state conducted an assessment of the problems and found that the application -- the heart and soul of SACSS -- was unable to perform daily business operations in a consistent fashion. The component designed to generate forms was not working. Furthermore, system testing was insufficient to ensure that the SACSS application was functioning correctly.[xx]

In order for pilot counties to achieve their operational goals, the system's capabilities needed refinement. SACSS training in those counties did not reflect the changes that had been made to the software; as a result, workers were unable to operate the revised system. SACSS further did not offer the flexibility required to fulfill its intended purpose of interactive connection to other systems. Over time, the parties to the contract became convinced that county-by-county tailoring was required.

The first vendor assessment identified how the problems should be resolved. However, instead of fixing the problems first, HWDC deployed the system to an additional 15 pilot counties -- contrary to what its own plans directed it to do should significant problems be identified. Throughout 1996, Fresno County continued to experience significant difficulties and could not perform critical functions. In December of 1996, HWDC recognized the significance of SACSS's ongoing troubles and assigned high-level management to the project in an attempt to resolve some of the more significant problems.

Finally, in January of 1997, just nine months before the revised federal deadline requiring a fully-functioning system, HWDC hired Logicon, an independent verification and validation (IV&V) vendor. Logicon was requested to investigate and identify all ongoing problems with the project.

One month later, Logicon filed a report referring to 1,400 problems plaguing SACSS, many of which focused on the project's management by the state and the vendor, including:

- the lack of experienced programming staff;
- the lack of input by district attorney staff in developing the system;
- inadequate testing of the system before roll-out;
- a greater number of system problems than expected;
- the unprecedented complexity of the system;
- the limited number of qualified staff to perform the necessary tasks; and
- the need for additional and more robust staff training.

What's more, since the same staff were unable to reconcile problems identified a year earlier in the first SACSS assessment report, Logicon expressed concern whether such problems could *ever* be fixed.

Soon after the HWDC received the Logicon report, it issued a formal letter dated February 26, 1997, to Lockheed, expressing serious concerns about the viability of the project and threatening possible legal action (see Appendix B).

According to the HWDC letter, "fundamental and material problems continue to plague the (SACSS) application . . . Major contractual milestone obligations established to enable timely SACSS implementation have been missed, and all but one have not been completed to date."[xxi]

"At this time, the State has both short-term and long-term concerns about Lockheed Martin IMS's ability to perform its contractual obligations," the letter continued. "The unfortunate truth is that your failure to meet contractual milestone obligations has caused substantial detriment to the State and the counties."[xxii]

"We regret having to advise you that the fundamental failure of the SACSS application to date, and the resulting inability of the counties to use the automated system to operate mandated child support enforcement activities, constitute significant material failures to meet the obligations of the SACSS contract between the State of California and Lockheed Martin IMS," it concluded.[xxiii]

Lockheed was required to develop and successfully implement the second corrective action plan (CAP), a plan to set out a process to resolve the 1,400 problems, on this project.

HWDC further directed the vendor to provide it with a staffing plan to ensure that a sufficient number of Lockheed employees will be committed to the project. Since every state in the nation is required to deploy a statewide child support enforcement system, Lockheed has similar contracts to develop child support systems in other states. As a result, Lockheed has been shifting its staff from one state to another, delaying the scheduled staggered roll-out of the system in California. In addition, the vendor is required to specifically identify what additional cost and staffing would be necessary to resolve the problems identified in the CAP.

As the letter demonstrates, HWDC has a clear lack of confidence in the vendor's ability to make SACSS fully functional. But, what is most troubling about the letter to Lockheed is that the HWDC has recently requested an additional $72.2 million to complete the project, raising the total cost of the project to more than $300 million. The agency's actions beg the question: why is the HWDC lobbying for another $72.2 million in taxpayer dollars for SACSS while, at the same time, raising serious doubts in writing about the future capabilities of the project?

In light of Logicon's identification of numerous system pitfalls, the request for additional funding seems premature. After all, even if each of the 1,400 identified problems with SACSS were solved overnight, do California taxpayers have any guarantee that SACSS will adequately serve all 58 counties?

CHAPTER FOUR: FROM THE ASHES OF DMV

"We empowered the Department of Information Technology to fix something that was broken. And, while I believe the Department has done some things well, I am also concerned that what was broken has yet to be fixed."

-- Assemblywoman Elaine White Alquist, February 24, 1997[xxiv]

When the DMV project went down in a conflagration of controversy, the Department of Information Technology (DOIT) arose from the ashes. DOIT is primarily responsible for the planning and oversight of the state's use of information technology, including the review of plans, policies and procedures to reduce the state's risk in information technology projects.

On May 12, 1994, Governor Wilson issued Executive Order W-88694 to establish the Task Force on Government Technology Policy and Procurement. The report of that task force cited severe and fundamental problems that were preventing the state from realizing a better return on its investment in information technology.

The Legislature responded by passing Senate Bill 1, authored by then-Senator Alfred Alquist and signed into law in October of 1995. SB 1 (Chapter 508, Statutes of 1995) created DOIT and, among other things, established the position of CIO as a cabinet-level officer.

Most significantly, SB 1 empowered the CIO with the unfettered authority to initiate, suspend or terminate any information technology project in the state. To date, the CIO's authority to suspend or terminate has not been exercised on a single project.

SB 1 also requires DOIT to identify which applications of information technology should be developed with a statewide scope in order to ensure the maximum return on the California's technology investment. Despite this mandate, agencies continue to independently plan and implement costly new management information systems based on conflicting policies.

CHAPTER FIVE: WHY ISN'T DOIT "DOING IT"?

"We're not going to let the agency off the hook. DOIT is responsible for insuring (the project) is done according to policies we lay out that we view are in the best interests in the state. The CIO has the ultimate authority to pull the plug on the project if we think it's not going to uphold the state's best interests or if it's gotten out of control."

-- Richard H. Halberg, Assistant Director,
Department of Information Technology, March 10, 1997[xxv]

The story of SACSS is one of sporadic management and spiraling costs. A poorly-crafted contract was only minimally improved; projected costs have skyrocketed from an initial $99 million to over $260 million; the project continues to experience potentially fatal technical problems; implementation has been delayed by at least two years; and, now, HWDC has requested an additional $72.2 million without even assessing whether it is in the best interests of the state to continue to throw taxpayer dollars into what is possibly another black hole.

While there seems to be growing momentum for pulling the plug on SACSS, the state's leading information technology authority -- DOIT -- has steered clear of the fray.

For example, after a series of failed attempts at implementation, it was the HWDC that finally decided to suspend the scheduled expansion of SACSS, not DOIT.[xxvi]

And, although DOIT might point to the involvement of Logicon as evidence of its oversight of the project, it is clear from a DOIT memorandum on the status of "Independent Verification and Validation of High-Interest Projects" that it was HWDC that requested Logicon's independent oversight assistance, not DOIT (see Appendix C).[xxvii] Moreover, although DOIT has been touting Logicon's oversight of SACSS since, at least, February of 1996, the Logicon report specifies that, in fact, it did not begin its IV&V role until January 10, 1997.[xxviii]

DOIT's action, or lack thereof, on SACSS is particularly troubling in light of the number of highly-publicized problems the project has had since DOIT's inception, and the question needs to be asked whether the Legislature should finally pull the plug on SACSS.

If, in fact, the Legislature established DOIT to prevent another DMV debacle, how bad does a particular project need to become before the state's information technology czar considers termination? Why doesn't DOIT require the Department of General Services (DGS) to write information technology procurement contracts that better protect the taxpayer? Why didn't DOIT require HWDC to fix the significant problems before SACSS was expanded to other counties? Should DOIT require HWDC to assess as a threshold consideration whether the plan to create a single statewide child support system is fatally flawed?

DOIT has had ample time to "roll up its sleeves" and address the weaknesses of this troubled project. It is, after all, a fundamental responsibility of the agency to be proactive in bringing resolution to problems identified in the state's numerous information technology systems. And, if necessary, it is required to pull the plug.

After six long years and $260 million in projected costs, California taxpayers demand and deserve someone in state government to take charge and be held accountable for the ultimate success or failure of SACSS. At long last, it is time for DOIT to "do it."

CONCLUSION

Due to flaws in the procurement process, SACSS has been in trouble since its inception. With a $4 million cap on liquidated damages, the poorly written contract leaves little protection for the state in the case of total project failure. As a result, if SACSS were scrapped today, the state would only be able to collect $4 million in liquidated damages and the vendor would keep close to $78 million.

When HWDC worked to amend the contract with Lockheed in 1995, operational problems were neither identified nor addressed in the final version. As a result, when the vendor makes corrective actions to SACSS, more staff are required to deploy the project, and overall costs continue to skyrocket. Such problems have been identified as vendor deficiencies, yet the state is invariably forced to spend taxpayer dollars to correct them.

SACSS has been a system in flux for at least two years, yet the state waited at least a full year to enlist oversight assistance from an independent consultant. From the initial estimate of $99 million, the total projected costs of SACSS skyrocketed to the current $260 million before the agencies involved took direct action.

If, in fact, SACSS is "unusable," the Legislature needs to determine if the project can be fixed or, in the alternative, if the plug should be pulled on this project before it approves further additional funding. The various application defects, as well as the overall system performance, raise serious questions about the future of SACSS in the state of California:

According to Logicon, this project has 1,400 unsolved problems. If the current application is faltering in Ventura County, what will happen when SACSS is installed in counties as large as San Bernardino and San Diego?

Another critical question to consider: when will the financial benefits of SACSS outweigh its massive costs? The private sector, for example, will not deploy a project that will fail to "break even" within two or three years. In contrast, the typical state information technology project does not "break even" until its eighth or ninth year in operation. SACSS, with its significant costs and uncertain viability, may *never* "break even."

In addition, there is a significant risk that SACSS will function at performance levels that are unacceptable to the majority of its prospective users -- namely, county employees. Should the state pursue a system which, even if fully functioning, may still be unacceptable to its users?

And, finally, what entity in state government is ultimately accountable for the success or failure of SACSS, a project with a price tag that makes the DMV debacle seem like pocket change in comparison?

After six years and $82 million in state monies, SACSS remains a system at risk. And, in the context of the current welfare reform debate, finding practical long-term solutions for SACSS becomes paramount. Before any additional funding measures are approved, the Legislature should require, through increased oversight and investigatory hearings, verifiable evidence that the SACSS system will function as intended in every county in the state.

ENDNOTES

1. "Is This Any Way to Run a Government?" Los Angeles Times, August 22, 1994.

2. "Computer work lost millions, DMV admits," San Jose Mercury News, April 26, 1994.

3. "DMV Spent $44 Million on Failed Project," Los Angeles Times. April 27, 1994.

4. "Shock Waves from a Computer Fiasco," Governing, August 1994.
Report from the Task Force on Government Technology Policy and Procurement, September 1994, pp. I-5 and I-6.

6. Ibid., Appendix A.

7. Analysis of the 1997-98 Budget Bill, Report from the Legislative Analyst's Office to the Joint Legislative Budget Committee.

8. Ibid

9. "High-Tech Headache," San Francisco Examiner, February 26, 1995.

10. "California's Child Support Program: Hi-Tech Services Advance," PR Newswire, June 23, 1992.

11. Ibid.

12. Quick Look Assessment Final Report prepared by Logicon, February 29, 1997, p. 12.

13. Transcript of the Informational Hearing of the Assembly Committee on Televising the Assembly and Information Technology, March 10, 1997.

14. "Mothers Pressed into Battle for Child Support," Los Angeles Times, March 24, 1997.

15. "Glitches Delay Payments for Child Support," Los Angeles Times, December 14, 1996.

16. "Delays, Errors Plague Child Support Computer Network," Los Angeles Daily News, February 21, 1997.

17. Letter dated February 26, 1997 from HWDC to Lockheed Martin IMS Corporation. See APPENDIX B.

18. "Automated System Tracking Child Support Raises Hopes, Fears," Orange County Register, November27, 1996.

19. "Problems Plague Computerized Policing of Child Support," Sacramento Bee, February 17, 1995.

20. Quick Look Assessment Final Report prepared by Logicon, February 28, 1997, p. 32.

21. Letter dated February 26, 1997 from HWDC to Lockheed Martin IMS Corporation. See APPENDIX B.

22. Ibid.

23. Ibid.

24. Transcript of the Informational Hearing of the Assembly Committee on Televising the Assembly and Information Technology, February 24, 1997.

25. Transcript of the Informational Hearing of the Assembly Committee on Televising the Assembly and Information Technology, March 10, 1997.

26. Letter dated April 4, 1997, from DOIT to HWDC.

27. Memorandum from the Department of Information Technology on the status of "Independent Verification and Validation of High-Interest Projects," February 22, 1996.

28. Quick Look Assessment Final Report prepared by Logicon, February 28, 1997.

APPENDICES

- Appendix A - Chronological Time Line on Information Technology

- Appendix B - Letter From Health and Welfare Data Center to Lockheed Martin IMS Corporation

- Appendix C - Memorandum from the Department of Information Technology on the Status of High Interest projects and Independent Verification and Validation (IV&V)

- Appendix D - Excerpts from Legislative Analysts Office's *"Analysis of the 1997-98 Budget Bill "*

- Appendix E- Excerpts from *"Task Force on Government Technology Policy and Procurement",* September 1994.

- Appendix F - Excerpts from Logicon Corporation's IV&V report on SACSS titled "Quick Look Assessment Final Report"

APPENDIX A

A chronological time line of Information Technology Policy in California starting from the Department of Motor Vehicles computer failure to present.

INFORMATION TECHNOLOGY TIME LINE

May 12, 1994-	the Governor issues Executive Order W88694 establishing the Governor's Task Force on Information Technology.
May 16, 1994-	the assembly Committee on Transportation investigates the failure of the DMV data replacement project in which cost tax payers over 50 million dollars.
June 16, 1994-	the LAO issues a report entitled "Information Technology: An Important Tool For A More Cost-Effective Government" citing severe fundamental problems preventing the state from realizing a better return on its investment in IT.
September 22, 1994-	Governor's Task Force releases report entitled "Task Force on Government Technology Policy and Procurement".
December 1994-	the State Auditor releases report entitled "The State Needs to Reengineer its Management of Information Technology".
January 1995-	Senator Alquist introduces SB 1 to create a new Department of Information Technology, with broad oversight of all state IT projects.
April 1995-	Governor creates the Office of Information Technology.
June 1995-	Governor's Council on Information Technology publishes "Getting Results" report.
September 12, 1995-	Governor appoints John Thomas Flynn as Chief Information Officer.
October 3, 1996-	Governor signs SB 1 (Alquist)
January 1, 1996-	Department of Information Technology officially created.
January 23, 1996-	LAO releases policy brief "State Information Technology: An Update".
July 1, 1996-	Progress report on DOIT reported to the Legislature.
October 1, 1996-	Report implementing the recommendations of the Governor's task force delivered to the Legislature.

December 1, 1996-	Annual progress report due. This report has not yet been delivered.
January 1, 1997-	Report due on method whereby the public may electronically Access nonconfidential information via state telecommunications Networks. This report has not yet been delivered.
February 28, 1997-	Independent oversight consultant, Logicon, issues an assessment report on the $260 million Statewide Automated Child Support System (SACSS) citing over 1,400 defects calling the system insufficient and inadequate.
May 1, 1997-	the Assembly Televising the Assembly and Information Technology Committee issues report "The $260 Million Problem-Will SACSS Ever Really Work?"
May 6, 1997-	the Assembly Televising the Assembly and Information Technology Committee investigates SACSS.
July 1, 1997-	report due assessing the feasibility of consolidating the state's information technology activities.

STATEWIDE AUTOMATED CHILD SUPPORT SYSTEM (SACSS) TIME LINE

January 1988-	Family Support Act of 1988 passed by federal government requires automated system
September 17, 1990-	Feasibility Study Report (FSR) Project is estimated to cost $99,183,361
December 1992-	Award of Contract to Lockheed Bid $73,997,882
September 8, 1995-	Sierra County pilot implemented.
October 2, 1995-	Plumas County conversion began.
October 30, 1995-	Project is now estimated to cost $260,497,475.
February, 1996-	HWDC deploys project to Fresno which experienced significant difficulties
December 12, 1996-	HWDC amends contract increasing estimated costs to $298,509,542.
January 1997-	HWDC hires Logicon, Inc. an independent verification vendor to evaluate SACSS.
January 1997-	the Governor's 1997/98 budget request increases estimated project costs to $313 million.
February 26, 1997-	Logicon releases an independent evaluation of SACSS citing over 1,400 problems with SACSS on the part of both the vendor and the state.

APPENDIX B

Letter dated February 26, 1997 from Health and Welfare Agency Data Center advising SACSS' vendor, Lockheed Martin IMS Corporation, of the fundamental failure of the SACSS application to date, and the resulting inability of the counties to use the automated system to operate mandated child support enforcement.

STATE OF CALIFORNIA

HEALTH and WELFARE AGENCY DATA CENTER
1651 Alhambra Boulevard
Sacramento, California 95816
(916) 739-7500
FAX (916) 739-7933

February 26, 1997

Mr. Richard F. Hartung
Executive Vice President
Lockheed Martin IMS Corporation
188 The Embarcadero, Suite 450
San Francisco, California 94 l 05

Dear Mr. Hartung:

SUBJECT: **NOTICE OF MATERLIAL FAILURE TO MEET CONTRACT OBLIGATIONS**

This responds to your letter of February l 3, 1997, and will also serve to memorialize the numerous conversations we have had with executives of your company in meetings and telephone contacts.

We appreciate the tone of your February 13 letter and the prompt personnel actions which you have taken. Nonetheless, the State of California remains gravely concerned that Lockheed Martin IMS Corporation has not delivered in accordance with the contract a viable Statewide Automated Child Support System (SACSS) application that enables county district attorneys to perform all required child support enforcement tasks and functions.

First, to date, the SACSS application has regrettably not worked as a fully functioning, automated system in accord with SACSS contractual requirements and federal automated child

support system guidelines. Neither on-line performance functionality nor the batch operations operate automatically. Over a year ago, problems with the application became apparent. Lockheed Martin IMS committed at that time, as part of an overall settlement of disputes, to fix the problems with the application. However, to this day, fundamental and material problems continue to plague the application. As you can well understand, the State is very concerned the application may never meet established operating requirements.

Second, although the counties must continue to perform all legally mandated child support enforcement activities, they cannot conduct them using the SACSS application because Lockheed Martin IMS has not delivered to the counties a fully functional SACSS system. Twice within the last year, implementation of SACSS into the counties has been halted for several months due to the failure of the SACSS application to meet the basic business needs of the counties. Major contractual milestone obligations established to enable timely SACSS implementation the the have been missed, and all but one have not been completed to date. Counties currently using the SACSS system to perform their day-to-day business operations require manual intervention to perform batch operations and meet other basic business needs.

We regret having to advise you that the fundamental failure of the SACSS application to date, and the resulting inability of the counties to use the automated system to operate mandated child support enforcement activities constitute significant material failures to meet the obligations of the SACSS contract between the State of California and Lockheed Martin IMS.

Based on these material failures to meet contract obligations the introduction of SACSS into additional counties has been halted. The introduction will not proceed until the 23 counties currently using SACSS are able to successfully perform their child support enforcement business processes using the SACSS application.

It is clear to all parties with a stake in the current SACSS application that Lockheed Martin IMS must take immediate, substantial and successful action to cure the current defects in the SACSS application and to vigorously re-institute the implementation schedule of SACSS into the counties. Further, it is crucial to the State that current production counties are able to perform their business of child support enforcement, using a fully' functional, automated SACSS system.

At this time, the State has both short-term and long-term concerns about Lockheed Martin IMS's ability to perform its contractual obligations. In the short-term, we recognize that with input from the State and the counties, Lockheed Martin IMS is creating a corrective action plan to address and resolve the defects in the SACSS application as well as associated problems related to successful implementation of SACSS in the counties. The successful implementation of the corrective action plan in a timely fashion is of critical importance to the State.

Unfortunately, the State of California also believes that successfully implementing this plan does not rectify the significant harm already suffered by the State as a result of Lockheed

Martin IMS's failures to date. The unfortunate truth is that your failure to meet contractual milestone obligations has caused substantial detriment to the State and the counties.

Examples of major failures to meet contractual milestone obligations include the feet that Siskiyou County was scheduled to be implemented November 1, 1995, yet was not successfully implemented until April 1, 1996; Fresno County was scheduled to be implemented February 1, 1996, yet to date has not been successfully implemented; 30 counties were to be successfully implemented by July I, 1996 and this has yet to occur, halted for several months due to the failure of the SACSS application to meet the basic business needs of the counties. Major contractual milestone obligations established to enable timely SACSS implementation into the counties have been missed, and all but one have not been completed to date. Counties currently using the SACSS system to perform their day-to-day business operations require manual intervention to perform batch operations and meet other basic business needs.

We regret having to advise you that the fundamental failure of the SACSS application to date, and the resulting inability of the counties to use the automated system to operate mandated child support enforcement activities constitute significant material failures to meet the obligations of the SACSS contract between the State of California and Lockheed Martin IMS.

Based on these material failures to meet contract obligations. the introduction of SACSS into additional counties has been halted. The introduction will not proceed until the 23 counties currently using SACSS are able to successfully perform their child support enforcement business processes using the SACSS application.

It is clear to all parties with a stake in the current SACSS application that Lockheed Martin IMS must take immediate, substantial and successful action to cure the current defects in the SACSS application and to vigorously re-institute the implementation schedule of SACSS into the counties. Further, it is crucial to the State that current production counties are able to perform their business of child support enforcement, using a fully functional, automated SACSS system.

At this time, the State has both short-term and long-term concerns about Lockheed Martin IMS's ability to perform its contractual obligations. In the short-term, we recognize that with input from the State and the counties, Lockheed Martin IMS is creating a corrective action plan to address and resolve the defects in the SACSS application as well as associated problems related to successful implementation of SACSS in the counties. The successful implementation of the corrective action plan in a timely fashion is of critical importance to the State.

Unfortunately, the State of California also believes that successfully implementing this plan does not rectify the significant harm already suffered by the State as a result of Lockheed Martin IMS's failures to date. The unfortunate truth is that your failure to meet contractual milestone obligations has caused substantial detriment to the State and the counties.

Examples of major failures to meet contractual milestone obligations include the fact that Siskiyou County was scheduled to be implemented November 1, 1995, yet was not successfully implemented until April 1, 1996; Fresno County was scheduled to be implemented February 1, 1996, yet to date has not been successfully implemented; 30 counties were to be successfully implemented by July 1, 1996 and this has yet to occur, and 57 counties were to be successfully implemented by February 1, 1997, and this milestone is not close to being implemented. The State places responsibility for these delays on Lockheed Martin IMS. In light of these failures and for purposes of responding to them, the State needs assurances beyond the successful implementation of the corrective action plan in the short-term. These assurances are as follows:

1. That a new schedule be developed which will be acceptable to the State for the implementation of SACSS in the remaining 34 California counties.

2. That Lockheed Martin IMS demonstrate its ability to resume introducing SACSS into additional counties by successfully implementing SACSS in at least a half dozen counties, including at least one large county (with at least 100,000 enforcement cases and 300 workers, or greater).

3. That an organizational staffing plan acceptable to the State be developed. which demonstrates sufficient resources and appropriate skill sets to enable Lockheed Martin IMS to meet its contractual obligations to successfully implement SACSS in 57 counties in California In your February 13, 1997 letter to Russell Bohart, you indicated that you will be coordinating a task force of Senior Lockheed Martin IMS staff to help ensure that the SACSS project is stabilized and returned to a successful path. This is to be commended, but such efforts must be supplemented by a long-term commitment of the resources required to enable SACSS to succeed.

Additionally, in light of the failures mentioned herein, the State would have every right to assess liquidated damages under the contract. However, our primary goal is the successful implementation of SACSS in California Accordingly, without waiving our right to assess liquidated damages, the State will refrain from assessing such damages at this time if Lockheed Martin IMS will agree to the following:

1. Assuming the 7th Amendment has received all required federal and state approvals, no invoices against the 7th Amendment shall be submitted by Lockheed Martin IMS to the State, and no amounts set forth in these invoices shall be owed, until the corrective action plan has been successfully implemented. The 7th Amendment is currently being reviewed by federal officials and state control agencies and the funds for this Amendment will also be subject to legislative review.

2. Beginning with invoices covering products and services provided on or after February 1, 1997, no such invoices shall be submitted by Lockheed Martin IMS to the State, and no amounts in such invoices shall be owed, until the corrective action plan has been successfully implemented. The State shall promptly process all but $2 million of these invoices, which are otherwise eligible for payment, upon its determination that the

corrective action plan has been successfully implemented. The remaining $2 million will not be owed until 30 days after the conditions set forth in Paragraph 3 have been satisfied.

3. Invoices for this remaining $2 million will be processed promptly upon:

   a) State acceptance of a new long-term organization staffing plan;

   b) State acceptance of a new schedule for implementation of SACSS in the remaining 34 counties; and

   c) The successful implementation of SACSS, as determined by the State, in at least six counties, including at least one large county with at least 100,000 enforcement cases and 300 workers, or greater.

4. The State will abstain from assessment of liquidated damages as long as it convinced that Lockheed Martin IMS is successfully implementing the corrective action plan and is meeting its other contractual obligations. However, if the State determines that Lockheed Martin IMS is not successfully implementing the corrective action plan or is not successfully meeting other contractual obligations, the State will assess liquidated damages if it deems such action to be appropriate.

Nothing in this letter should be construed to waive any of Lockheed Martin IMS's obligations under the SACSS contract. Nor does it excuse or acquiesce to any contractual failure that might jeopardize federal funding.

Despite all of the above, the State continues to believe that the most desirable course of action for all stakeholders is for Lockheed Martin IMS to successfully implement SACSS in California This remains the State's primary goal and the State reaffirms its commitment to work together with Lockheed Martin IMS to achieve this goal. All parties must recognize that the SACSS project is critical to the many parents who depend on child support to provide a better life for themselves and their children.

Please sign the confirmation below by March 3, 1997, to indicate that the terms of this letter are acceptable.

Sincerely,

Signed/ C. DEL LUTTGES, Director
Systems Integration Division

The terms set forth in points 1 thru 4 above are acceptable to Lockheed Martin IMS and I am authorized to accept these terms on behalf of Lockheed Martin IMS.

Signed/ Richard F. Hartung

Lockheed Martin IMS

c:
John Brophy, Lockheed Martin IMS
Jed Pearson, Lockheed Martin IMS
John Thomas Flynn, Department of Information Technology
Thomas Nagle, Health and Welfare Agency
Tom Roberson, Health and Welfare Agency
Eloise Anderson, Department of Social Services
Leslie Frye, Department of Social Services
Russell Bohart, Health and Welfare Agency Data Center

APPENDIX C

The February 26, 1996 Memorandum on the status of Independent Verification and Validation (IV&V) on High Interest Projects from the Department of Information Technology

2/26/96

INDEPENDENT VERIFICATION AND VALIDATION
HIGH INTEREST PROJECTS

Student-Aid Commission *Financial Aid Processing System*	*IV&V required* (Visicom)
Department of Motor Vehicles Business Process Reengineering Untangling Project	 Project plan includes IV&V Project plan includes IV&V
Department of Social Services Disability, Determination Services Auto. IHSS Case Management, Info & Payroll System	 Completed - no IV&V required RFP stage -will include IV&V
Health and Welfare Data Center Child Welfare Services/Case Management System Statewide Automated Child Support System Statewide Automated Welfare System Statewide Fingerprint Imaging System	 Has IV&V - Logicon Has IV&V - Logicon Has IV&V - Logicon Has IV&V - Logicon
Department of Housing & Community Development Registration and Titling System	Has IV&V R&G Associates
Caltrans *Project Management DataBase*	*IV&V required* (R&G Assoc.)
California Highway Patrol Migrate Administrative Applications to Teale	Completed - no IN &V required
Department of Health Services *WIC Integrated Statewide Information System*	*IV&V required* (III/Mike Cox) (Dept. considering IV&V (50/50))
Department of Corrections Correctional Management Information System	Has IV&V - Logicon
Veterans Affairs Integrated Hospital Information System	Has oversight - R&G Associates

Employment Development Department Tax Branch Workflow Automation Project	RFP calls for QA plan/method
Board of Equalization Conversion to Teale Data Center	Software AG (vendor) doing quarterly QA reviews/BOE audits
California State Lottery *Automated Instant Ticket Gaming System*	*IV&V underway* (R&G Assoc.)
Department of General Services CA Network System (CALNET)	DOIT exercising direct oversight
Franchise Tax Board Bank & Corporations Tax System	DOlT exercising direct oversight

APPENDIX D

Excerpts from the Legislative Analysts Office's "Analysis Of The 1997-98 Budget Bill"

LEGISLATIVE ANALYSTS OFFICE ANALYSIS OF THE 1997-98 BUDGET BILL

DEPARTMENT OF INFORMATION TECHNOLOGY (0505)

The Department of Information Technology (DOIT) is responsible for planning and overseeing the state's uses of information technology. The department is responsible for ensuring that appropriate plans, policies and procedures are in place to assure the successful implementation of information technology projects.
The budget proposes $6.6million for support of the department's operations in 1997-98, an increase of $2.5million, or 62percent, over estimated current-year expenditures. Of the increase, $600,000 would support eight new positions, and $1.9million would be expended on external consulting services.

Method of Funding the DOIT. With the exception of $750,000 budgeted as reimbursements, the cost of operating the DOIT will be spread across all state agencies through the state pro rata plan. This method of funding has been adopted by the Department of Finance (DOF) in response to the Legislature's direction, in the *1996-97 Budget Act*, that the DOF establish a more equitable method of funding the DOIT's operation. The Legislature concluded that the previous method was inequitable because it required two state data centers to fund two-thirds of the DOIT's annual budget, while assigning no funding responsibility to many other state agencies which would receive far more services from the DOIT.

DEPARTMENTAL RESPONSIBILITIES

Background. In 1995, the Legislature enacted major reform legislation relating to the planning, implementation and oversight of the state's information technology activities. This legislation--Chapter508, Statutes of 1995 (SB 1, Alquist)--was the result of several legislative hearings and various reports including a report issued by our office in June 1994 entitled *Information Technology: An Important Tool for a More Cost-Effective Government*. The Legislature determined that major reform was necessary in order to address multiple serious problems affecting the state's information technology activities. According to the DOIT, California state government spends about $2billion annually on such activities.
The centerpiece of this reform was to establish a new department (DOIT), reporting directly to the Governor, and to assign to it many specific responsibilities which, if accomplished, would improve the state's ability to apply information technology in a cost-effective manner, and improve the Legislature's confidence in major information technology initiatives. Figure11 shows the major responsibilities assigned the DOIT by Chapter508.

Department Is in the Process of Addressing Major Information Technology Issues. According to the department, it is on the verge of completing a number of tasks which must be accomplished in order for it to fulfill its statutory responsibilities. While many of the department's projects are still under development, one project--the California 2000 Program--has been highly visible and appears to be the most complete. We discuss this program in more detail below. Other important projects, including providing policy guidance to departments regarding the initiation and oversight of information technology projects, operational recovery, information security, and improved reporting to the Legislature regarding information technology projects, are in varying stages of progress.

DEPARTMENT MAKES PROGRESS TOWARD YEAR 2000 CONVERSION

The Department of Information Technology has provided leadership to state agencies in planning the conversion of their computer programs to accommodate the millennium change.

The state, like private sectors and governmental jurisdictions worldwide, must modify its computer programs to accommodate the year 2000. This is necessary because many computer programs were coded without anticipating

the millennium change, and they simply will fail to perform accurately, or at all, unless coding changes are made. Given the reliance of many state programs on computer systems, departments have no practical option but to make the changes in order to avoid serious degradation in their ability to carry out important state programs. Virtually all state agencies are affected by this pending change, and there are millions of lines of computer coding which must be screened to identify needed changes. Some departments have already had to address this situation; for example, those that issue licenses with expiration dates after 2000.

Figure 11

Department of Information Technology (DOIT)
Major Responsibilities under Ch 508/95 (SB 1, Alquist)

- Oversee the management of information technology in state agencies, with authority to suspend or terminate projects.
- Develop and implement a strategy to facilitate information sharing among state computing systems.
- Determine which information technology applications should be statewide in scope, and ensure that such applications are not developed independently or duplicated by state agencies.
- Develop and maintain a computer-based file, accessible to the Legislature, of all approved information technology projects.
- Develop statewide policies and plans that recognize the interrelationships and impact of state activities on local governments, including local school systems, private companies that provide services to state agencies, and the federal government.
- Requires the DOIT to submit the following reports (due date):
- Progress toward compliance with the provisions of the measure (July 1, 1996).
- A plan for implementing the recommendations of the Governor's Task Force on Government Technology Policy and Procurement (October1, 1996).
- A method whereby the public may electronically access nonconfidential information via state telecommunications networks (January 1, 1997).
- A preliminary assessment of the feasibility of consolidating the state's information technology activities (July 1, 1997).

Figure 11
Department of Information Technology (DOIT)
Major Responsibilities under Ch 508/95 (SB 1, Alquist)

- Oversee the management of information technology in state agencies, with authority to suspend or terminate projects.
- Develop and implement a strategy to facilitate information sharing among state computing systems.
- Determine which information technology applications should be statewide in scope, and ensure that such applications are not developed independently or duplicated by state agencies.
- Develop and maintain a computer-based file, accessible to the Legislature, of all approved information technology projects.

- Develop statewide policies and plans that recognize the interrelationships and impact of state activities on local governments, including local school systems, private companies that provide services to state agencies, and the federal government.
- □ Requires the DOIT to submit the following reports (due date):
- □ Progress toward compliance with the provisions of the measure (July 1, 1996).
- □ A plan for implementing the recommendations of the Governor's Task Force on Government Technology Policy and Procurement (October1, 1996).
- □ A method whereby the public may electronically access nonconfidential information via state telecommunications networks (January 1, 1997).
- □ A preliminary assessment of the feasibility of consolidating the state's information technology activities (July 1, 1997).

DOIT Takes Positive Steps in Year 2000 Challenge. The administration initially focused attention on this problem in 1995 through the temporary Office of Information Technology established by the Governor. The DOIT enhanced the focus and has achieved a number of accomplishments in its effort to guide state agencies to a successful resolution of the year 2000 challenge. These include establishing the California Project 2000 site on the Internet where state agencies can obtain information, ranging from state policy direction to the names of year 2000 conversion managers in each state agency. Also, in November 1996, DOIT issued the *California 2000 Program Guide* which is intended to help departments by describing the problem and identifying the DOIT's approach to addressing it. In addition, this guide solicited information from the departments which the DOIT believes it must have in order to carry out its statutory oversight responsibility. Although it is too early to determine how well the program guide will work, the DOIT's efforts are important and consistent with the Legislature's expressed intent that the DOIT provide statewide leadership in critical areas of information technology.

How Much Will the Year 2000 Change Cost, and How Will it Be Funded? In last year's *Analysis* we estimated that the total state cost to convert computer programs could exceed $50million, based on some preliminary estimates from a very small number of departments. Some observers think the cost will be substantially higher once all departments complete their assessment of the situation, as has been required by the DOIT in its *California 2000 Program Guide*. An accurate assessment of the potential cost is important, given that the budgets of most state agencies do not include funds to convert their computer programs. We discuss this funding issue in this *Analysis* in our discussion of the DOF (please see Item 8860 of this chapter), where we recommend that the DOF advise the Legislature during budget hearings as to the estimated cost to convert computer programs and how this cost will be budgeted.

OVERALL PERFORMANCE OF DEPARTMENT HAS BEEN MIXED

Although it is too early to conclude how well the department will eventually meet its statutory responsibilities, its performance to date has been mixed. Nevertheless, we recommend that the Legislature approve the budget request, but monitor the department's progress closely.

Although officially established on January 1, 1996, the department was essentially active before then in the form of the temporary Governor's Office of Information Technology, which was established in April 1995. In addition, the current Chief Information Officer was appointed by the Governor in September 1995. Consequently, the administration has had in excess of 18 months to address the various information technology problems identified in independent reports and subsequent legislative hearings.

As we pointed out earlier, the department has taken important steps in addressing the year 2000 change which has important fiscal implications for state agencies. Nevertheless, many significant problems remain unresolved despite the amount of time which has passed, and the fact that the DOIT has been provided all funds requested of the Legislature. These problems range from improving the state's ability to apply information technology successfully and in a cost-effective manner, to replacing the obsolete electronic mail system used by thousands of state employees.

We acknowledge that it is going to take time to implement the changes embodied in Chapter508. However, relatively simple but important tasks have not been implemented, such as modifying project-related documentation submitted to the Legislature so as to provide members a better understanding of the status of major state information technology projects, or establishing training and certification programs for the managers of technology projects and related contracts in order to enhance the opportunities for project success. Below we discuss our concerns with the DOIT's performance to date.

Department's Oversight Track Record Is Spotty. Chapter508 requires that the DOIT identify which applications of information technology should be statewide in scope, and ensure that such applications are not developed in isolation. Despite this requirement, several state agencies are in varying stages of planning or implementing costly new personnel management information systems--for example a $22.6million project proposed by Caltrans. This is being done at the same time that a consortium of key state agencies has been involved in a project initiated in 1995 by the State Controller's Office (SCO) which will lead ultimately to the replacement of the state's personnel and payroll systems currently operated and maintained by the SCO. Clearly, this is a situation which the DOIT is required by law to resolve, but so far has not, and the cost of developing multiple redundant systems will be substantial.

The DOIT has also delegated broad authority to the Health and Welfare Agency Data Center (HWDC) to upgrade costly mainframe computing systems. This delegation of authority is troubling because it removes oversight from such purchasers. Such oversight is important because: (1)a mainframe computer can cost several millions of dollars and the state needs to ensure that its data centers are not purchasing more capacity than is needed, (2) computer costs are a major determinant of the data center rates that are changed to other state agencies, and (3) the state needs to ensure that it is considering appropriate alternatives to mainframe computing.

DOIT Role in Assisting Troubled Projects Is Unclear. The DOIT was established in response to deficiencies in state planning, leadership, and oversight of information technology. The failure of the Department of Motor Vehicles' (DMV) information technology project has been cited by many as symptomatic of fundamental problems in the state's information technology infrastructure. To our knowledge no other state information technology project has failed since the DMV project was terminated. However, the state auditor in a January 1997 report on the Office of Emergency Services (OES) notes the partial failure of the OES' $5million Public Assistance Damage Survey Report Management Information System. Moreover, several major projects continue to experience problems. These include:

- The $119million California State Lottery's Scratcher Automation Project, which has experienced major problems, including the failure of the Lottery to develop computer applications in order to fulfill its contractual obligations.
- The Department of Corrections' Correctional Management Information System, a $99.8million project, has been delayed for over a year due to major differences of opinion between the state and the contractor as to the contractor's performance and obligations.
- The Integrated Revenue Information System project at the Board of Equalization, the largest component of a $39million project, is also experiencing major differences of opinion between the state and the contractor regarding the contractor's obligations.
- The $313million Statewide Automated Child Support System, a project managed by the HWDC, continues to grow in cost beyond initial and even revised estimates, and has encountered significant performance problems.

The departments managing these complex projects are applying their efforts to resolving project problems, and in many cases are using external consultants to help them. The DOIT's performance in terms of facilitating problem resolution for these projects is not clear; however, in the case of the Lottery system, DOIT involvement has been minimal despite a Memorandum of Understanding between the DOIT and the Lottery which the Legislature was advised would ensure a DOIT oversight role.

Required Reports Have Often Been Late and Fallen Short of Meeting the Legislature's Needs. As shown in Figure1, Chapter508 placed several specific reporting requirements on the DOIT. The reports have been submitted late and have not provided all of the information needed by the Legislature. The first report required of the DOIT was a progress report on compliance with the requirements of Chapter508, including a plan and schedule for complying with this legislation. This report, due by July 1, 1996, provided minimal or no indication of the task objectives, expected outcomes and schedules needed to comply with Chapter508, and was unclear in some instances as to the DOIT's specific role.

The second required report, a plan for implementing the recommendations contained in a September 1994 report to the Governor by his Task Force on Government Technology Policy and Procurement, was both late and fell short of fulfilling the statutory requirement. The report was required to address each of the 21 specific recommendation made by the task force. The report, however, responded to only seven recommendations, two of which had been accomplished through Chapter508. According to the DOIT, it elected to focus on what it perceived to be the seven most important recommendations; however, this is not consistent with the direction in Chapter508.The status of other important recommendations is unclear, thereby depriving the Legislature of the information it sought through the reporting requirement.

A third required report, concerning DOIT's progress in implementing the provisions of Chapter508, was due on December 1, 1996, but had not been released at the time this *Analysis* was prepared. Finally, a fourth report, addressing the issue of public electronic access to non-confidential public records, was due on January 1, 1997, but had not been issued at the time this *Analysis* was prepared.

Required Notification to the Legislature Also Falls Short of the Mark. In approving the *1996-97 Budget Act* for the DOIT, the Legislature included, at the department's request, $500,000 for a consultant study of the consolidation of the state's data centers, and the development of an implementation plan. The funding was made available contingent upon a 30-day notification to the Legislature explaining the objective and scope of the consultant study. In accordance with this condition, the DOIT advised the Legislature on September 27, 1996, of its intention to begin the project. In response, the Chair of the Joint Legislative Budget Committee advised the Director of the DOIT that his letter did not provide sufficient information to determine what the consultant would be asked to do or what were the expected deliverables. The DOIT subsequently selected a consulting firm to conduct the consolidation study.

Strategic Plan for State Telecommunications. **The** ***1996-97 Budget Act*** required the DOIT and the Department of General Services to submit a plan to the Legislature by October 31, 1996, for resolving several specific state telecommunications issues, including annual losses resulting from the operation of the California Network System (CALNET) and the potential for consolidating telecommunications networks. In response, the departments submitted on December 20, 1996, the *California Integrated Information Network* (CIIN) strategic plan, which recommends the consolidation and divestiture of the state-owned telecommunications infrastructure. We have the following concerns with the report.

It is difficult to determine from the plan for consolidation and divestiture whether it is feasible and can be accomplished within the time frames it establishes. First, we disagree with one of the plan's fundamental premises, that in all instances the operation of telecommunications networks are neither "core competencies nor core responsibilities" of the state and therefore should be divested. While we have raised serious questions regarding CALNET, we are unaware of any analysis which indicates that the California Law Enforcement Telecommunications System (CLETS) operated by the Department of Justice, or the extensive telecommunications networks operated by the HWDC and the Teale Data Center, do not represent core competencies and responsibilities.

However, even if the premise were assumed to be valid, the plan's feasibility is uncertain because important details have yet to be disclosed, such as exactly what components of state telecommunications networks would be consolidated. Moreover, discussions with departmental managers indicate that there has been minimal consultation with the state agencies which operate and rely on state telecommunications networks. Failure to adequately involve key state departments carries with it a risk that the business needs of state agencies, and therefore, their ability to carry out important state programs effectively, will take second priority in a rush to divestiture.

We believe that the plan's schedule--to award by January 1, 1998 a contract to the private sector to provide state telecommunications services--is unrealistic for a number of reasons including the relative newness of the DOIT, and therefore the lack of a track record which would warrant confidence in its ability to meet the January 1, 1998 date. Moreover, the Department of General Services, the DOIT's partner in this endeavor, has a spotty record in terms of meeting schedules for the awarding of technology contracts. In addition, the competitive bid process itself entails many opportunities for delay, and the state's track record in technology procurement is generally one of repeated rescheduling.

Finally, one of the plan's goals is to raise the technical telecommunications expertise of state employees to a level " . . . commensurate with the expertise found in the most prestigious consulting and technical firms in the private sector." While we agree with this goal, we think that this is unlikely to occur because telecommunications expertise is highly sought after, with the best experts commanding salaries which the state cannot match. Moreover, the plan does not propose a salary structure which would make the goal attainable.

In summary, we believe that it is questionable as to whether the plan in its current form provides a sound basis on which to proceed to dismantle a critical underpinning of the state's information technology infrastructure.

Documents From Departments in Support of Major Information Technology Projects Often Poorly Prepared. In general, state departments are required to advise the Legislature as to (1) proposed new information technology projects and (2) significant changes in cost, benefits, or schedules to previously approved projects. State departments fulfill this requirement by notifying the Legislature in writing concerning proposed new projects, and providing a special project report when significant changes occur to existing projects, and a post-implementation evaluation report when a project is completed.

In many cases, the documents provided to the Legislature are difficult to understand because they are poorly prepared and do not contain important summary information. To correct at least a part of this problem, Chapter508 required that these documents contain specific summary information at the front of the document. The DOIT, which is required by Chapter508 to establish policies and procedures (including the format for information technology documents) has yet to do so. Consequently, many of the documents sent to the Legislature to apprise it of major information technology projects continue to be obscure.

DOIT Decision Is Inconsistent With Legislative Intent. The Legislature has, at various hearings, expressed its intent that state departments define their needs, rather than technical solutions, and allow the vendor community to propose its solutions through a competitive process. Contrary to this intent, the DOIT approved a Department of Consumer Affairs (DCA) project to implement an Integrated Consumer Protection System, but allowed the department to specify the solution after the DCA rejected vendor proposals on the basis that they were too costly. The project approved by the DOIT not only allowed the DCA to stipulate the technical solution to be employed, but also involved a sole-source contract award which we believe is generally contrary to both Legislative and Executive Branch policies governing competitive acquisition.

What Should the Legislature Do? As discussed above, the DOIT's performance has been mixed, and on balance has not been as responsive to Chapter508 as the Legislature intended. A number of major information technology issues remain unresolved, and it is not at all clear whether, or when, the DOIT will succeed in its efforts to fulfill its statutory charter.

In our judgement, close monitoring of the DOIT is warranted given its performance to date and the state's substantial dependency on information technology. We recommend that the proposed budget for the DOIT be approved, and that the Legislature ensure, through legislative oversight hearings, that the DOIT complies with the requirements and directions of Chapter508.

PROJECT COST AND SCHEDULE ESTIMATES ARE FREQUENTLY INACCURATE

We recommend that the Legislature adopt supplemental report language requiring that the Department of Information Technology, in conjunction with the Department of Finance, adopt a policy requiring that feasibility study report transmittal letters and special project reports contain an indication of the administration's assessment of the sensitivity to change of the costs, benefits, and schedules contained in these documents.

In the individual departmental writeups of this *Analysis*, we identify several major information technology projects where costs have increased significantly above the original or updated estimates. The problem of inaccurate project estimates is not new. As a result, the Legislature continues to be asked to approve budgets for information technology projects which are based on cost estimates which are likely to increase. Schedules are often unrealistic as well. Whether benefit estimates experience the same inaccuracies is more difficult to determine, as few projects are ever completed to the extent that a post-Implementation evaluation report is prepared, which would address the extent to which estimated benefits were in fact achieved.

Given this situation, we believe that feasibility study report (FSR) transmittal letters and special project reports (SPRs) for information technology projects should address the probability that cost, benefit, and schedule estimates are likely to be accurate, including any qualifications regarding those estimates. To help improve the meaningfulness of budget requests based on estimates contained in information technology project-related documents, we recommend the following supplemental report language:

The Department of Information Technology shall adopt a policy requiring that feasibility study report transmittal letters and special project reports address the sensitivity to change of the cost, benefit, and schedule estimates contained in these reports.

LEGISLATURE NOT ADVISED OF ALL MAJOR INFORMATION TECHNOLOGY PROJECTS

We recommend that the Legislature adopt supplemental report language requiring that the Department of Information Technology adopt a policy requiring departments to (1) provide notification to the Legislature of any feasibility study report approved under delegated authority, where the estimated project cost is $1million or more, and (2) provide the Legislature a copy of any special project report issued relating to any project about which it has been notified.

Under current state policy, departments are required to notify the Legislature whenever they transmit an FSR to the DOIT for review. Departments are also required to provide the Legislature copies of any SPR issued relative to a project which has required the review of the DOIT. Although this policy results in the Legislature being notified annually of several major information technology projects, many are not reported because state policy allows the DOIT to delegate to departments the authority to approve their own projects, in which case they are not required to report projects to the Legislature. When the DOIT delegates approval authority, it generally establishes a cost threshold which, if exceeded, requires DOIT review.

Given unresolved problems in the state's information technology infrastructure, we believe that the Legislature should be notified of *all*major projects, and receive the documentation it would normally receive were such projects required to receive the approval of the DOIT. For this reason, we recommend the following supplemental report language:

The Department of Information Technology shall adopt a policy requiring that the Legislature receive notification of any feasibility study report approved under delegated authority, where the estimated project cost is $1million or more, and requiring further that the Legislature receive a copy of any special project report issued relating to any project about which it has been notified.

APPENDIX E

Excerpts from "Task Force on Government Technology Policy and Procurement"

I - EXECUTIVESUMMARY

California is at the forefront of changes in government and technology that are transforming the lives of the people who live here. Foremost among theses changes is the proliferation of information created and made available to businesses and the public. Information and information technology are now a fundamental part of our lives. Businesses treat information about customers, products, operations and financing as strategic assets. Government has long recognized that most of its services are information based. In light of these facts, information technology is advancing at a lightning pace, technology based businesses are growing daily,) and industry and government are making long term strategic investments in information and the technology required to collect, store, manage, analyze, report, share, transmit and secure it. The global information economy has become a reality.

The State of California is an enormous enterprise, bigger than most national governments and many of the world's private enterprises. It has over 100,000 employees and over 30 million customers. Like most large organizations, its inertia presents a significant barrier to change. The State's size, however, should not be used as a rationale for why it is different or why it should not or cannot change. Instead, its size and stature underscore the State's place as a leader in the world. California should strive not only to emulate the world's other large and successful organizations, but to surpass them.

California is already a world leader in technology. We are a state rich in technical and human resources. California is a home to hundreds of existing and emerging technology companies. Our people are products of the best universities in the country; they are highly skilled and trained, working in an environment that tolerates dissent and fosters creativity and innovation. For these reasons, many of the world's leading companies do business in California.

In this context, the Governor's Task Force on Government Technology Policy and Procurement was charged to review the State's Information Technology (IT) policies and practices to find ways to minimize our risks on major projects, increase competition and lower costs, and make it easier for Californians to use technology that delivers State services. Our examination of IT included not only data processing, software development and maintenance, and IT support, but also telecommunications, technology strategy and the development and training of the State's IT professionals and customers. The Task Force has spent the past sixty days gathering data, reading and listening to input from government and private sector IT executives, discussing and debating the State's past, present and future IT policies, and uncovering the common themes that connect the present state of IT with the desired future. Our research has not been exhaustive, nor has our analysis always been complete. However, we have applied our collective experience, our understanding of the State's IT practices, our perceptions of the major IT issues facing the State, and our best thinking and judgement to this effort.

Before presenting our findings and recommendations, it is important to discuss the case for change within the State, as well as the State's readiness for change: where it is and what factors convince us that the time is right for the breakthrough that we foresee.

COMPELLING CASE FOR CHANGE

Large organizations do not, as a rule, change easily. Typically, a major crisis or series of disruptive events is required to create the sense of urgency and danger that motivates organizations and the people that comprise them to shift away from the norm and step outside of their "comfort zones." Because change involves risk and uncertainty, organizations only begin to contemplate change when the risks and uncertainty associated with the current crisis are greater than those associated with change.

California is in the midst of an IT crisis where the dangers of not changing are greater than the dangers of changing. The threats associated with not changing in the face of the current crisis are evident. The State is confronted with:

1. An IT budget that is increasing in the face of reductions in the statewide budget
2. A lack of enterprise-wide planning and coordination of IT that has led to redundancies and repeat problems
3. A lack of performance information (metrics) to measure the effectiveness, efficiency and value of the State's IT investments
4. A product development cycle that is stretched to its limits by large IT projects, taking extraordinarily long to deliver solutions when the pace of business, government and technological change is so fast that it dooms many projects to failure before they are completed
5. Past and potential future project failures that diminish Legislative and public confidence in the State's ability to deliver cost effective IT solutions

The counterweight to these risks is opportunity. California has the opportunity to make changes that will enable it to emerge from the current crisis in a position of strength and leadership. To do so, it must create opportunities from risks by:

1. Developing and implementing successful IT projects that add value to the State and its customers
2. Providing planning and support to improve statewide coordination of IT services, functions and infrastructure
3. Making organizational and operational changes to develop, manage and operate its IT services and functions more efficiently and cost effectively
4. Shortening the product life cycle to reduce the impact of external changes on large IT projects
5. Establishing effective measures of project and manager performance

California is ready for change; its IT crisis is composed of equal measures of threat and opportunity. Both the threats and opportunities facing the State are real, and it will take real change to achieve the breakthrough required to realize the opportunities.

This report provides both long term direction and short term actions for the State to pursue. Recognizing that our sixty day timeframe forced us to give some issues less than full consideration, we should emphasize that this report represents a beginning rather than an end to the process of reforming the State's IT policies and practices; there is more work to be done. The Task Force is ready to continue to help in this reform.

The report discusses two fundamental themes that the State of California should deal with in its long term direction for IT. These are the ideas that consistently surfaced during our discussions and deliberations. They are the foundation for California's long term IT vision. We have also proposed several short term recommendations which comprise specific action items the State should address to improve its IT policies and procurement. These are the steps that the State should take to begin to make the breakthrough that we foresee. Finally, we have identified the critical success factors for the State to address its IT needs.

FUNDAMENTAL THEMES

The two fundamental themes that permeated our discussions and analysis are first that investment in Information Technology will increase California's competitiveness, and second that the concept of public trust must be redefined.

Investment in Information Technology Will Increase California's Competitiveness
Information Technology cannot serve the state government of California unless it serves the needs of *its* citizens. California's people and businesses are the true customers of the State's IT products and services. The role of IT is to bring those products and services closer to the customer, increasing their effectiveness and reducing their cost.

Today's business and culture are in the process of a transformation fueled by the proliferation of information and technology. This proliferation has led to the explosive growth of the global information economy. Businesses and governments that are able to form partnerships, create successful research and development efforts, develop pilot programs and ultimately enhance the delivery of information based products and services, will lead the rest of the world's governments and businesses into a new generation. The State of California is in position to take such a leadership role.

The State's IT direction must support California's global competitiveness by fostering public/private partnerships, by creating an information and telecommunications infrastructure (the Information Superhighway) that delivers a strategic advantage to the State, and by pioneering information based products, services and service delivery systems that benefit the State's people and businesses.

The Concept of Public Trust Must Be Redefined
The issue of public trust is at the center of the major IT issues facing the State. The policies and procedures instituted to ensure that IT expenditures are appropriate have created an environment in which it takes too long to develop an IT solution from conception to implementation; problems or mistakes are not quickly surfaced; projects are subject to delays

and cost overruns; more appropriate technologies are often bypassed in favor of an outdated solution; and an adversarial relationship between the State and its vendors prevails. These are symptoms of a model whose well intentioned procedures to maintain the public trust have made it very difficult to manage the risks inherent in large IT projects. The ability to better manage and mitigate risk is central to the redefinition of public trust.

Discussions of the management of risk and how it relates to the issue of public trust are particularly timely in the wake of the recent cancellation of a large IT project undertaken by the Department of Motor Vehicles (DMV) to consolidate its two major information systems. The DMV project is not an exception in the arena of large IT projects. IT projects are inherently risky and many fail, both in private industry and government. Instead of eliminating failure, the State's emphasis should be on management of risk and early detection of failure to mitigate its impact.

For decades, public trust has been based on the principle of checks, balances and controls. When failures occur, the typical response has been to add more layers of control. As layers of control are added, the processes instituted to protect the public trust become so cumbersome as to constrain the ability to effectively manage risk.

Public trust must be redefined if the State is to effectively manage the risks involved with large IT projects. It should be redefined through changes in policy and practice that enable the State to share technological risks with vendors; focus accountability on high level line managers who have the authority and responsibility to take appropriate action to reduce risk or mitigate the impact of failure; free project managers from the constraints of burdensome control processes, but still hold them accountable for their decisions and conduct; weigh the alternatives of canceling projects that do not meet desired business results, forcing immediate business needs to wait for the delivery of other IT solutions; assess its IT projects, identifying problems and potential failures early; and develop solutions in partnership with expert vendors and implement them more quickly, taking into account any business or technological changes that occur.

The successful redefinition of public trust should be measured against three important yardsticks: results, expectations and confidence. Better risk management should lead to fewer and, more importantly, smaller failures. It should also foster better project management which should lead to better results for successful IT projects. Better results will provide better value and service to the customer, the citizens of California, who have come to expect value from IT projects based on their experience with the private sector. When the State meets these expectations it will increase the public's confidence in the State's ability *to* deliver services. This increased confidence should create a better environment for initiating and managing risky IT projects in the future.

ACTION ITEMS

The State's long term IT direction must reflect the State's long term vision for how the business of the state (i.e. the government) will best serve its shareholders (its citizens). It must support the concept of good, innovative, effective government. A great deal of good work is happening

at the department level -- ther e are many "pockets of excellence" in the State - but absence of enterprise-wide coordination and leadership has limited effectiveness. The following short-term recommendations are selected from those presented in Section V of this report because they have the greatest impact on the State's future IT success.

Establish a State CIO: California should establish a position of Chief Information Officer (CIO) as an agency head and a member of the Governor's policy making staff. The primary responsibilities of the State CIO will be to:

1. Develop and communicate the State's overall IT vision and direction
2. Be an advocate for the strategic implementation of IT and telecommunications in the State
3. Coordinate IT planning policy, standards, communication and synergies across agencies
4. Establish a link between public and private sector in developing long term partnerships and joint ventures for IT
5. Provide a liaison from the Governor's Office to the Legislature on IT policy and procurement issues
6. Develop and oversee a suitable statewide IT infrastructure

Reporting directly to the Governor, the CIO would merge policy and operations to achieve key results such as building internal and external relationships, establishing an enterprisewide IT vision and organizing to achieve the vision, building a statewide IT infrastructure, ensuring that skilled and trained IT personnel are available and utilized, measuring the value generated by IT investments and overseeing high risk projects.

The CIO should be supported by two standing advisory boards: an advisory Council comprised of agency or department CIOs, which would provide advice on key IT policy and procedural issues, statewide standards, major IT projects and strategic technologies that should be pursued; and an external Commission which would be comprised of IT executives from the private sector (and possibly Legislators), to advise the State on best IT practices in other organizations, establish the foundation for private/public joint ventures in IT and advise the State on its long term IT vision and strategies.

The CIO should have both policy and operational responsibility and authority. Specifically, the CIO should have line authority for all non-development IT functions including procurement, data center operations and telecommunications. The CIO would provide IT services for small through specialized centers of excellence. The CIO should also have the responsibility and authority to make the final decision on whether to cancel or continue large IT projects (with the discretion of conducting an external, independent project review).

One of the CIO's first priorities should be to establish performance metrics and standards for all IT operations and services. Another of the CIO's early initiatives would be to investigate opportunities for consolidation, out-sourcing and privatization of State IT services or operations. The CIO would oversee feasibility studies and make recommendations to the Governor, the Legislature and heads of agencies and departments.

Once appointed, the CIO should have full latitude regarding how organizational and policy changes are implemented, although they would likely be staged based on the CIO's assessment and further investigation of key issues.

Eliminate the Office of Information Technology: The Office of Information Technology (OIT) does not add significant value in either IT advocacy or oversight. State departments and agencies expect OIT to provide services that support their IT vision and initiatives and add value to the process of IT development and procurement. Instead, they are confronted with a process focused organization whose objectives conflict with departmental and project objectives.

In OIT's absence, departments should continue to prepare business based Agency Information Management Strategy (AIMS) plans that define their IT projects and initiatives. Department line managers will be required to become strong proponents of IT projects in their purview. They will assume OIT's previous responsibility for reviewing and approving the Feasibility Study Reports (FSR) as the primary justification for IT projects. The CIO will assist in the risk analysis portion of the FSR, incorporating appropriate risk analysis methodologies into the FSR process.

Shorten the IT Product Delivery Cycle and Reduce IT Project Risk: A shortened IT product delivery cycle will reduce the risks associated with rapidly changing technology, changing business needs and user fears and resistance. IT product delivery cycle time is constantly being hindered by checks and balances, control agencies, and bureaucratic processes. By redesigning its IT product delivery process, the State would shorten cycle times, reducing the State's overall IT project risks and improving overall control. For example, the Product Delivery Cycle can be shortened from conception to approval by:

- Conducting activities in parallel rather than sequentially (e. g., the and RFP processes could be conducted jointly)
- Focusing on business results rather than the detailed technical specifications of a pre-determined solution
- Reforming the protest process that currently delays the start of almost 50% of large IT projects by three to four months
- Establishing more Master Service Agreement contracts with vendors for frequently used services that are typically needed on short notice

The State should also take pro-active steps to reduce the risk of its IT projects by instituting reforms such as:

- Reducing the size of large projects by breaking them into more manageable and quickly accomplished components -- current projects are too big
- Sharing risks with vendors on projects that use unproven technology
- Restructuring the Feasibility Study Report (FSR) process to formally include risk assessment

- Evaluating and adopting formal risk assessment and mitigation methodologies (e.g. the Stanford Risk Assessment Model)
- Proto-typing alternative solutions in a proof-of-concept phase involving hands on testing by users, before committing to a final solution
- Instituting metrics to measure performance in terms of business objectives
- Giving line managers responsibility and accountability for IT projects
- Staging funds to provide continued based on demonstrated results

Reform the Procurement Process: Consistent with the measures taken to shorten the IT product delivery cycle, the State should continue to reform its procurement of IT. It should move IT procurement under the State CIO, and shift from cost based awards to value based awards for all non-commodity procurement. The procurement process should solicit solutions from vendors, encourage vendors to put forth the their best thinking for innovative and creative approaches to meeting business needs not just technical specifications. Currently, the State bears 100% of the risk for unproven technology. Involving vendors in solution selection would lead to better coordination and risk sharing with vendors. IT project vendors are rarely granted performance incentives, either positive or negative. The State should institute vendor performance incentives, and wherever appropriate, procurement should use pre-qualified bidder lists based on performance.

The State should reform the protest process which currently affects about 50% of large procurements. Only 5 % of protests are upheld which suggests that the process presents few barriers to frivolous protests. The State should institute dis-incentives to frivolous protests, such as requiring the unsuccessful protesting vendor to pay for the cost of the protest or limiting the number of protests a single vendor can file within a given time period. The State should also explore ways to shorten the delays caused by protests through processes such as arbitration or a preliminary protest review.

Establish Strategic Partnerships: Form strategic Win-Win partnerships with IT vendors based on mutual trust, an interactive process that allows creativity, innovation and change, and value based procurement awards. Successful State-vendor partnerships based on teamwork and shared objectives are rare because the State's current procurement process reinforces an adversarial relationship between the vendor and the State. Though intended to create an "even playing field" among vendors, the procurement process ultimately detracts from the vendors' ability to propose creative or innovative approaches to meeting business needs and so limits the potential benefit that the State might derive from innovative solutions.

Institute New Personnel Systems and Procedures for IT: Although the State's IT problems are generally process related, not people related, the State should institute some reforms in its IT personnel systems and procedures. Currently, its compensation structure attracts personnel who prefer job security and the stability of State service, rather than people with leading edge skills and expertise; IT managers' incentives are not based on business performance; the State does not have an adequate number of people with the skill sets needed to implement current, creative and innovative IT solutions; transferability of skills and experience between departments is limited because experienced and successful project managers are prized and their departments try to keep them rather than moving them to other critical State IT projects;

the Civil Service system does not facilitate a regular or timely infusion of new people, new thinking, or creativity from the outside -elements that are critical to meet the needs of a rapidly changing discipline like IT; it is difficult to terminate poor performers; and it is difficult to bring in consultants or subcontractors in a timely manner under the current State system. Therefore, the State should:

- Create an incentive structure for IT managers that is based on meeting business needs and facilitating change
- Make more State IT positions eligible for pay for performance with meaningful financial rewards available for top performers
- Revise position classifications to make it more feasible to bring higher level IT professionals from outside the State into positions above the entry level
- Rotate IT managers between departments to match individual skills and project needs
- Establish a project management training academy
- Reform the State contracting process for consultants
- Institute performance evaluation reforms that make it possible to terminate poor performers and release them out of the State system

Consolidate State IT Operations: There are economies of scale and cost efficiencies to be gained by consolidating utility type IT services - particularly the data centers and the telecommunications networks. If the State can seriously pursue opportunities for consolidations, it is not unreasonable to reduce IT expenses by millions of dollars annually by eliminating duplication and redundancy. The Task Force studied this issue closely and recognizes that it is a highly charged issue -- both politically and organizationally. We believe that consolidation is necessary and we recommend that the State CIO investigate opportunities for consolidation as one of his or her first priorities. This feasibility study must be done quickly and objectively, otherwise there is a risk that it will not be done at all. Both the data processing and telecommunications areas should be studied, including a review of costs, performance and service measurements, and an assessment of whether the operations are candidates for consolidation, out-sourcing or privatization. The State should not own and operate networks that can be provided more cost effectively by the private sector. Once the alternatives have been evaluated, a recommendation should be made to the Governor and the Legislature, including an implementation plan.

CRITICAL SUCCESS FACTORS

Throughout our discussions, the Task Force focused on five principles that are critical to the pursuit of a successful IT vision and strategies. They are:

1. Customer Focus
2. Enterprise-wide View of IT
3. Business Driven Approach to IT Solutions
4. Adoption of the Best IT Practices and Characteristics of Successful Organizations
5. Cost Competitive IT Services

Customer Focus

The customer of California's State government is the citizen. Because of its critical role in increasing citizen access to government information and services, the State's IT function must focus on the citizen as its most important customer. Although IT organizations must meet the business needs of their internal customers (users of IT) so that they can meet the needs of the end customer, there should be no question that the end result of all State IT projects and investments should benefit all the citizens of the State.

Enterprise-wide View of IT

The State's IT vision must include an enterprise-wide view of the State as an integrated provider of government services. It must guide investment that builds the IT infrastructure and systems, delivers government products and services and builds synergies across all aspects of State government. Although the State provides a broad mix of products and services, it must weave together the disparate elements of its different branches and departments through a common vision that describes how IT will shape government's relationship with its citizens, businesses and other constituents.

Business Driven Approach to IT Solutions

The focus on business driven solutions is central to any successful enterprise. For enabling technologies like IT, it ensures that the end result (the goal or benefit to be achieved) rather than means (the technology) drives the solution.

Adoption of Best lT Practices and Characteristics of Successful Organizations

Organizations that achieve breakthroughs in performance generally do so by taking aim at the best organizations around them and striving not only to emulate but to surpass them. These organizations look outside their industry or competitive environment to other industries that have been revolutionized through the application of best practices. The State must pursue the same strategy of emulating breakthrough organizations with the best IT practices. In particular, the State should institute business oriented performance measures (metrics) for all IT functions and projects. These metrics should be used to assess the State's progress against its objectives, as well as against "best in class" organizations.

Cost Competitive IT Services

To achieve its IT vision, the State must align *its* organization and operations with its IT vision and its objectives to deliver on that vision. In doing so, all decisions regarding the operation of IT services (particularly commodity services like data processing or telecommunications) should be re-examined relative to their cost competitiveness with the external market for those services. Any State operated IT service that is not competitive with the market should be targeted for out-sourcing or privatization. This pertains to not only commodity services, like data processing and telecommunications, but also to the State's approach to application development. The State must avoid the attitude that its software systems should be built rather than bought, and should carefully scrutinize what the marketplace can deliver before developing software in-house.

The Task Force's analysis of the State's IT policies and practices has outlined the major IT themes, identified the most important action items, and highlighted the critical success factors. If our recommendations are accepted, it will be the responsibility of the newly appointed State

CIO and the two IT advisory boards to work with the Governor and the Legislature to make these changes happen. There are significant structural, organizational and cultural obstacles that must be overcome to successfully implement these recommendations. However, the commitment of the State's leadership to the changes outlined here elevate the potential for successful change.

This Executive Summary provides a high level review our work. The remainder provides more detailed explanation and analysis, organized as follows:

- **Section II** presents the Task Force's Objectives, Scope of Study and Study Plan
- **Section III** provides background to the Study including the current state of the IT environment, a-review of some of the State's IT success stories, and a summary of the compelling case for change in the State's IT policies and practices.
- **Section IV** describes the statewide IT Vision and Strategic Direction expanding on the two fundamental themes and five critical success factors described in this Executive Summary.
- **Section V** summarizes the Task Force's observations and recommendations broken out into the four elements of the Study Plan: Organization and Planning, Management and Control, Procurement, and Personnel. Section V fully details the action items presented in this Executive Summary.
- The **Appendices** to this report provide background on the Task Force, including biographies of the members, the Study Plan, agendas and minutes for each Task Force meeting, a summary of research provided to the Task Force, and a selected bibliography of readings.

ORGANIZATION AND PLANNING

Current Practices

The State's existing IT organization is de-centralized. Information technology is manage separately in the three branches of State government and the State's educational institutions. In the Executive branch, each department has *its* own IT organization which is usually a section within the Administrative Division or a stand-alone division. Small departments may have an IT staff of as few as one person. Large departments or departments that are large users of information technology, have an IT staff of several hundred people with a Deputy Director acting as the department's Chief Information Officer (CIO). In at least one case, the Employment Development Division (EDD), there are two IT Divisions -- one for operations and one for planning and development.

The State's centralized IT planning organization is the Office of Information Technology (OIT) in the Department of Finance. OIT is a planning and control organization with a small staff less than 20. OIT's primary role as a control organization is to review departmental proposals for IT projects or procurement. These proposals, called Feasibility Study Reports (FSR), are either approved or returned with recommended changes. Although FSRs are required for major projects, each department has a delegated authority to undertake a project or procurement up to a specified budget. For small departments the budget may be $25,000 or lower. For large IT divisions (or the data centers) the amount may be $500,000 or higher.

OIT also advocates uses of information technology that increase the effectiveness and efficiency of government, identifies new applications for information technology, and assists agencies in designing and implementing information technology. Because OIT has limited resources to provide this service, it is generally best utilized by smaller departments who lack IT resources of their own.

Observations

The Task Force's key observations in the area of Organization and Planning follow. These observations are based on the information provided to the Task Force by the State's IT Executives, presentations made by State and private sector representatives at the Task Force meetings, and the Task Force's own perceptions.

1. ***Statewide Coordination of IT:*** Alignment of business and IT strategy occur at the department level but rarely above. Strategic planning and direction is fragmented among departments, agencies, OIT, and DGS - each - each with their own business or program goals driving the IT direction. This not only leads to an unclear statewide IT vision, but it makes it difficult for departments to align their IT planning with a statewide vision *to* improve quality, productivity, customer service and cost effectiveness. Furthermore, there are no formal coordinating, interaction mechanisms in place for sharing expertise, best practices, synergies within the State. There is limited interchange across departments and between IT and operating managers. **The State is**

not tapping the potential' to exploit synergies and share IT expertise and resources across agencies and departments.

2. ***Statewide IT Infrastructure:*** The State does not have a comprehensive strategy for its technical infrastructure. As a result decisions for key elements of IT infrastructure such as telecommunications, desktop computing**,** client/server technology and groupware are left to each department without any guiding policy, direction or standards. This has led to duplication and redundancy, particularly in the area of telecommunications, where the State has several independently developed and managed telecommunications networks. **The State lacks an enterprise-wide strategy for IT infrastructure (including telecommunications).**

3. ***Program Leadership For IT:*** The State needs leadership from its program and line managers *to* drive enabling functions like information technology. Currently, program or line managers are not fully accountable for IT projects, leaving IT managers to take full responsibility. Because of this, IT projects have focused on technical rather than business objectives, IT investments have been measured in technical rather than business terms, and IT procurements have been devoid of business based requirements, concentrating instead on technical specifications. **In summary, the procurement of IT has tended to be driven by technical rather than business issues.** Business vision and leadership can best provide the foundation for integrated IT planning and direction, leading to solutions that meet business needs.

4. ***Unclear Control Agency Roles:*** The Office of Information Technology does not appear to be adding significant value, either in terms of IT advocacy or oversight. Although its role is defined in statute and in the State Administrative Manual, there is a great deal left to interpretation. Because OIT's staffing is not sufficient to perform both its advocacy and control role properly, one or both tend to slip. As a result, there is no true statewide IT advocate or visionary. **There must be clear statewide responsibility for IT advocacy and vision.**

5. ***Delivery of Commodity IT Services:*** The State has multiple organizations of various sizes providing commodity IT services such as data processing, telecommunications, strategic planning, and network and end-user support. This suggests that there may be opportunities to consolidate and/or out-source some of these operations and realize greater efficiency and cost effectiveness.

   Although some of these organizations strategic services services specific client organizations whose dedicated service might suffer from consolidation, others might benefit from consolidation into larger organizations. Similarly, some IT services are mission critical and should be carefully considered before any consolidation is attempted. For example, since telecommunications is a mission critical component of law enforcement, consolidation or out-sourcing of the Department of Justice telecommunications network would put the State at risk in the case of a service disruption. **However, significant opportunities for future consolidation or**

out-sourcing exist, even though all IT operations should not necessarily be centralized.

Recommendations

1. ***Establish a State CIO:*** California should establish a position of Chief Information Officer (CIO) as an agency head and a member of the Governor's policy making staff. The primary responsibilities of the State CIO will be to:

   1) Develop and communicate the State's overall IT vision and direction
   2) Be an advocate for the strategic implementation of IT and telecommunications in the State
   3) Coordinate IT planning policy, standards, communication and synergies across agencies
   4) Establish a link between public and private sector in developing long term partnerships and joint ventures for IT
   5) Provide a liaison from the Governor's Office to the Legislature on IT policy and procurement issues
   6) Develop and oversee a suitable statewide IT infrastructure

   Reporting directly to the Governor, the CIO would merge policy and operations to achieve key results such as building internal and external relationships, establishing an enterprise-wide IT vision and organizing to achieve the vision, building a statewide IT infrastructure, ensuring that skilled and trained IT personnel are available and utilized, measuring the value generated by IT investments and overseeing high risk projects.

   The CIO will require technical, organizational and change management skills. The CIO must be action oriented and organizationally focused. An academic or "ivory tower" thinker would not be effective in building relationships, providing motivation and leadership to IT personnel, and creating an effective organization. However, the CIO must also be a strategic thinker who can coordinate on-going IT tactical and strategic activities at the department level and integrate them into a statewide IT vision and direction.

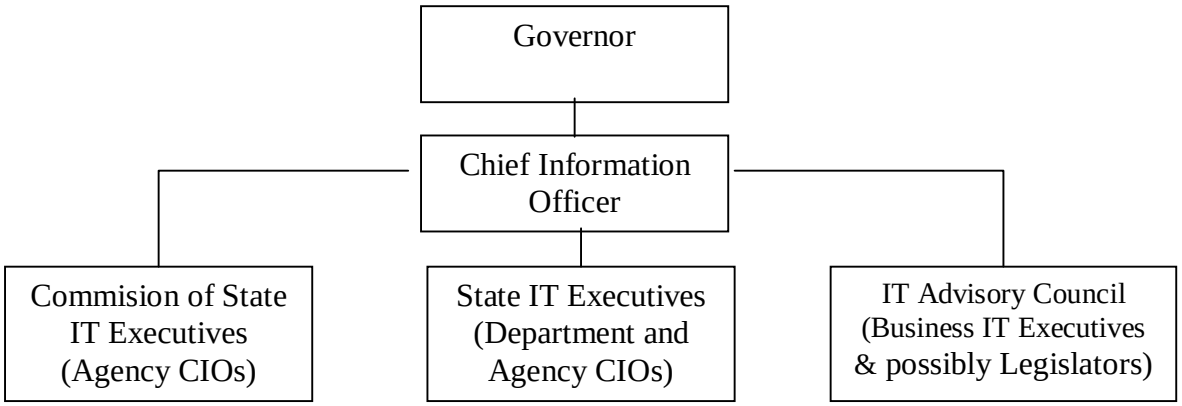
   The CIO would have a small staff consisting primarily an IT strategy group to assist the CIO in making the State a technological visionary and leader.

   There should be two standing advisory boards, one internal and one external, to assist the CIO with strategic planning and coordination. The internal board, an advisory Council comprised of agency or department CIOs, would provide advice on key IT policy and procedural issues, statewide standards, major IT projects and which strategic technologies should be pursued. With the State CIO acting as Chair, this group would be comprised of 12 -15 members from the executive branch's largest IT organizations.

   The external Commission would be comprised of IT executives from the private sector and possibly Legislators, with a private sector executive acting as Chair. Acting as an Advisory Commission, it would advise the State on best IT practices in other organizations, establish

the foundation for private/public joint ventures in IT and advise the State on its long term IT vision and strategies. The CIO would be a non-voting, nonetheless integral member of the Commission. The structure of the CIO and advisory boards is shown in Exhibit V - 1.

Exhibit V-1 State CIO Organization



In addition to providing statewide IT planning, policy and direction, the CIO would review and coordinate department and agency IT strategy with the statewide strategies. The CIO would identify parallel efforts and recommend opportunities for joint ventures between departments. Where multi-department projects are undertaken, the CIO would provide high level coordination and mediation between the departments involved, the Governor's office and the Legislature.

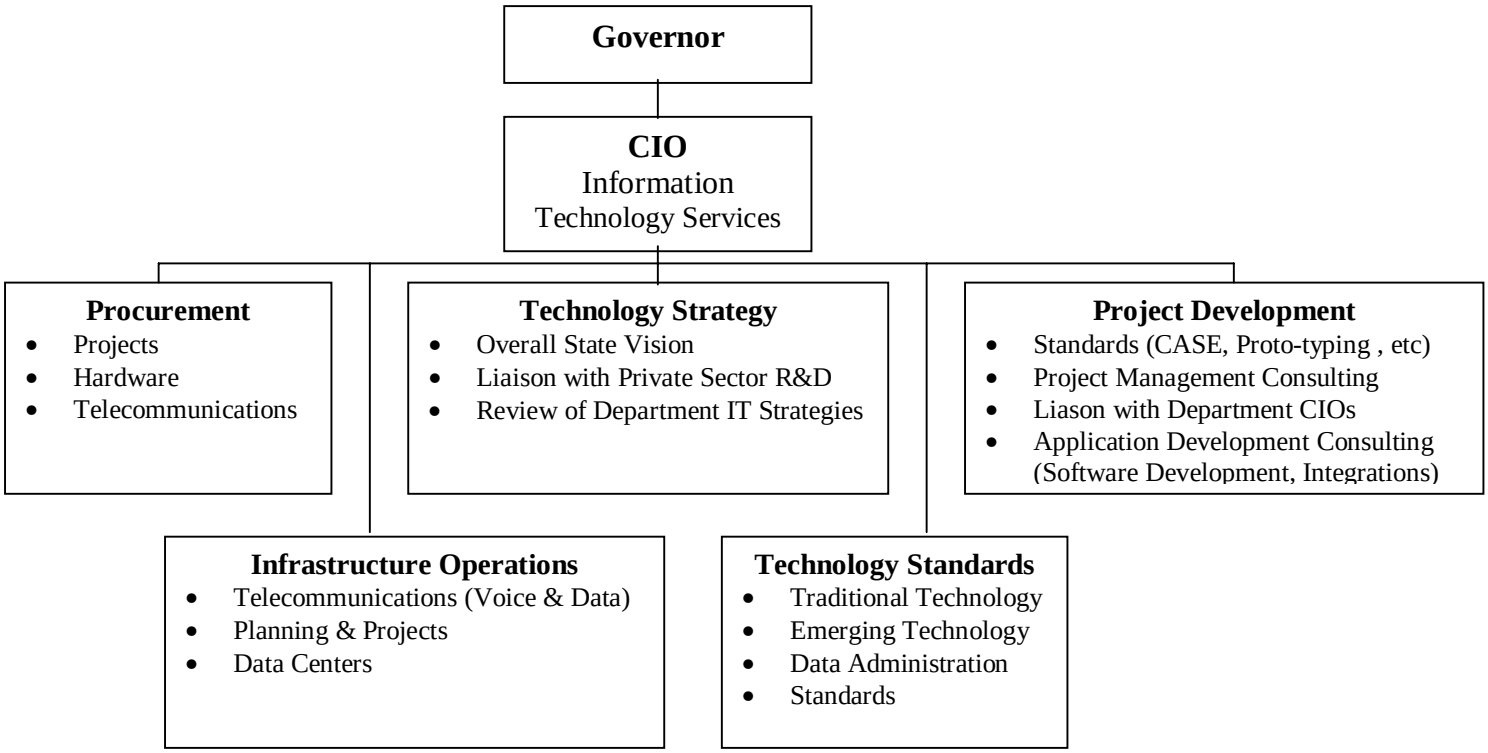
The CIO would set a technological direction for the State by overseeing the adoption of standards for technical and software platforms, data administration and transferability, and overall IT infrastructure that would provide broad, flexible guidelines without restricting departmental prerogatives. In some cases, standards already exist or have been adopted de facto; in other cases, leading organizations within the State are laying the groundwork for new technical standards in areas such as client/server and end user computing. Although there is no simple or straightforward solution to the issue of standards, they cannot be ignored. Departments should be supported and encouraged to achieve their business objectives through IT solutions that meet standards because this helps build and maintain a statewide IT infrastructure.

To be effective, the CIO should have both policy and operational responsibility and authority. Specifically, the CIO should have line authority for all nondevelopment IT functions. Although application development should remain the responsibility of the departments, the CIO should initiate an effort to catalogue all of the State's on-going IT projects, similar to the recent inventory developed for state owned property. The State's IT projects represent a significant asset, it's investment in IT, for which there is currently little information available. The CIO should also make the final decision to cancel or continue large IT projects based on whether the desired business results are likely to be achieved, and what alternatives exist for meeting the business needs if the project is cancelled. The CIO should have the option of convening an independent, external review board to assist in these decisions.

One of the CIO's first priorities should be to establish performance metrics and standards for all IT operations and services. Metrics would be divided into two categories: effectiveness (i.e., meeting business objectives) and efficiency (i.e., low cost per unit). The CIO would ensure that IT managers tracked these metrics and took appropriate measures to maintain performance standards. Another of the CIO's early initiatives would be to investigate opportunities for consolidation, out-sourcing and privatization of State IT services or operations. The CIO would oversee feasibility studies and make recommendations to the Governor, the Legislature and heads of agencies and departments.

Placing operations under the CIO's responsibility creates demands that might distract from it primary advocacy and policy roles, but it provides the autonomy to make out-sourcing decisions and make organizational changes happen quickly. The placement of IT operations under the CIO is a key to short term success, but it may not be the best long term organizational design; it can be re-evaluated at a future time. Exhibit V - 2 presents a proposed organization structure for the CIO.

Exhibit V-2 State CIO Organization - Proposed



Once appointed, the CIO should have full latitude regarding how organizational and policy changes are implemented, although they would likely be staged based on the CIO's assessment and further investigation of key issues. Wherever possible, the CIO should avoid establishing changes in law since mandated functions and responsibilities severely limit organizational flexibility. One of the greatest challenges facing the CIO is determining whether organization and policy changes are a feasible way to achieve the

desired results, or whether other, more radical alternatives like privatization should be considered.

The CIO should consider strategic use of consulting resources to inject new and innovative thinking into the State's IT planning, policy and operations management. The CIO could also provide access to specialty IT resources (either through staff or consulting resources)—centers of excellence -- for departments that could not otherwise procure these services.

The CIO has responsibility for the overall effectiveness of the State's IT services and organizations, setting both metrics and standards for performance throughout the State's IT organizations. The CIO should be held accountable for statewide IT performance through a Profit and Loss measure for the information technology "business."

2. Eliminate the Office of Information Technology*:* At this moment, the Office of Information Technology (OIT) does not add significant value in either IT advocacy or oversight. State departments and agencies expect OIT to provide services that support their IT vision and initiatives and add value to the process of IT development and procurement. They desire a facilitative, service oriented relationship. Instead, they are confronted with a process focused organization whose objectives conflict with departmental and project objectives. OIT is rarely considered part of the IT project team. Whether it lacks sufficient staff, capabilities, or credibility with State departments, OIT has not been able to provide IT coordination, advocacy and oversight.

OIT administers control processes and mechanisms that most departments view as obstacles to success because they add costs and impose resource and schedule constraints. Inadvertently, these control processes have diluted clear accountability by confusing responsibilities of the program department (both its IT and program divisions), the vendor (if one is involved) and the control agencies (OIT and DOS), with the result that no single organization is responsible for the (success or failure) of a project.

In OIT's absence, departments should continue to prepare business based Agency Information Management Strategy (AIMS) plans that define their IT projects and initiatives. Department line managers will be required to become proponents of IT projects in their purview. They will assume OIT's previous responsibility for reviewing and approving the Feasibility Study Reports (FSR) as the primary justification for IT projects. The CIO will assist in the risk analysis portion of the FSR, incorporating appropriate risk analysis methodologies into the FSR process.

3. ***Consolidate Utility Type State IT Operations:*** There are economies of scale and cost efficiencies to be gained by consolidating utility type IT services particularly the data centers and the telecommunications networks. If the State can seriously pursue opportunities for consolidation, it is not unreasonable to reduce IT expenses by millions of dollars annually by eliminating duplication and redundancy.

The Task Force studied this issue closely and recognizes that it is a highly charged issue - both politically and organizationally. We recommend that the State CIO investigate opportunities for consolidation as one of his or her first priorities. This feasibility study must be done quickly and objectively, otherwise there is a risk that it will not be done at all. Both the data processing and telecommunications areas should be studied, including a review of costs, performance and service measurements, and an assessment of whether the operations are candidates for consolidation and/or out-sourcing. Once the alternatives have been evaluated, a recommendation should be made to the Governor and the Legislature, including an implementation plan.

4. ***Elevate Departmental IT Organizations:*** The State should take several steps to elevate departmental IT organizations throughout State government. First, the IT organization should be elevated to division level in all but the smallest departments. Any department that uses IT as a strategic or enabling technology should have a Deputy Director CIO to participate directly in the department-wide planning, policy and decision making.

   In addition, each agency should designate a CIO for the agency. Though not necessarily a full-time position for each agency (i.e. it could be one of the agency's department CIOs), the agency CIO would be an IT professional responsible for IT coordination and planning across the agency. The agency CIO would chair an agency IT Advisory group composed of departmental CIOs, and would participate (as appropriate) on the State CIO Advisory Council. The agency CIO would provide access to IT services (through internal or external out-sourcing) for small departments whose IT organizations are not able to provide the full range of IT services.

APPENDIX F

Excerpts from Logicon's IV&V report on SACSS titled *"Quick Look Assessment Final Report"*.

SACSS Quick Look Assessment Final Report
SAC97022801 - February 28, 1997

Executive Summary

Development of the Statewide Automated Child Support System (SACSS) project began with contract award to Lockheed Information Management Systems in December 1992. Lockheed enlisted American Management Systems (AMS) as a subcontractor to develop the application software. SACSS was first implemented in Sierra and Plumas counties in September and October 1995, respectively, and is presently operating in 23 counties. The implementation approach was to deploy first in the smaller counties, and correct all significant system problems before deploying in the larger counties. This would mitigate the risk of causing serious disruptions to the large counties with substantial caseloads.

The total costs for SACSS, as approved in the January 1996 Special Project Report (SPR), are $260.4 million. Of this amount, Lockheed/AMS are projected to receive $106.7 million. Expenditures to date total $82.0 million.

The system architecture proposed and implemented by Lockheed consists of a distributed database residing on servers located in each county, and a central server situated in Sacramento. Users access the system from desktop personal computers using an interface that is "character-based"—it is not the graphically rich interface that typifies desktop software today. To meet Federal requirements that SACSS be based upon an existing system. Lockheed has modified the New England Child Support Enforcement System (NECSES) in its attempt to meet California's functional requirements.

From the outset, the system problems have been greater than expected. In November, 1995, additional personnel were added to the project to resolve the hundreds of known problems. While the majority of these were addressed, approximately 1400 problems remain. The California Family Support Council (CFSC), in its January 13, 1997, letter to the Department of Social Services, expressed deep dissatisfaction with the system, and presented the counties' most pressing concerns. Lockheed/AMS have responded by developing a Corrective Action Plan (CAP) to resolve the CFSC concerns.

Against this backdrop, Logicon was engaged as the Independent Verification and Validation (IV&V) contractor on January 10, 1997. One of our first major tasks was to determine the technical "viability" of the SACSS project. To us, this meant obtaining answers to the following questions:

- Is the SACSS architecture fundamentally sound?

- What are the most critical system problems?

- Can these problems be corrected in a reasonable time frame?

To answer these questions, Logicon conducted extensive interviews with all of the key State project personnel, the State's consultant staff, and pertinent Lockheed/AMS personnel. Logicon also visited Ventura county, to interview SACSS users, and Los Angeles County, to examine a similar system. In addition, we conducted a telephone survey of nine SACSS counties, representative of the counties currently "live," and extensively researched the equipment and software comprising the SACSS system. We received excellent cooperation from everyone associated with the project. As of the date of this report, the information we have examined leads us to the following conclusions

The SACSS design provides for the required functionality, but not the necessary quality and performance. Logicon found that SACSS, as designed, is capable of providing the child support enforcement functionality required to meet the needs of the counties. Although there are numerous problems, we believe that Lockheed/AMS has the capability to fix the functional defects, but that it will require significant effort and monitoring. We are concerned with the significant performance problems, as discussed in the body of the report (see Section 5.1, System Performance). The most significant of these performance problems is due to the design of the batch processing software. This problem poses the most significant technical risk to the project, and must be resolved to ensure that SACSS can handle the case load of the largest counties over the life of the project. ibis is addressed in Section 5.1.1.6, Assessment of SACSS Batch Processing.

The testing methodology needs further improvement. SACSS testing consists of three levels: unit, system and acceptance. At present, the test process is focused on specific defects and change requests. Test planning occurs in periodic meetings among test personnel. We have significant concerns with this approach. First, we have seen no test plan to address the overall test process for a release: what is to be tested, what procedures will be run, when resources will be available, who is responsible for running the test, who will verify success. Second, we have seen no test plan for comprehensive regression testing, used to verify that no unintentional changes have been introduced, although regression testing is proposed to be initiated for Release 5.1 1. Third, no measurements are collected on the effectiveness of the test program. Fourth, no formal action items or minutes are recorded from the test planning meetings. While changes have been made in the past sixty days that will improve the application quality, the test planning, methods and measurements require significant improvements (see Section 5.3, Testing Methodology).

The SACSS users consider the system to be overly complex and not user friendly. The difficulty of using SACSS is the major hurdle to the acceptance of the system. SACSS requires the user to navigate through a complex series of input screens. The user must constantly switch to a different screen to look up routine information, and the help facility is not context sensitive. When coupled with the serious application errors and poor performance, it is not surprising that the level of satisfaction with the system is so

low. Technical changes can fix defects and improve system responsiveness, but a parallel effort to identify methods for reducing system complexity, in both the short and long term, will also be required. These issues are addressed in Section 4, User Assessment.

The aggregate number of problems poses a significant risk to the Corrective Action Plan. The Corrective Action Plan initiated by Lockheed/AMS proposes to resolve most of the defects brought forward by the California Family Support Council. These problems could each be fixed within 90 to 180 days, with the exception of the user interface and the performance issues. The aggregate of these problems, though, is formidable. We are concerned about Lockheed/AMS' ability to achieve the objectives of the CAP on schedule. This team was unable to resolve the application performance problems, pointed out in the SACSS Assessment Report, dated February 23, 1996, by the September 1996 deadline. Careful monitoring by the State project staff, and by Logicon, will be essential to ensure that any variation from the CAP is immediately addressed.

The number of application defects, installed workarounds and a complex user interface have made the objective evaluation of SACSS extraordinarily difficult. Key functions are not reliable and are not "user friendly." The counties have been either reluctant, or unable, to use many of the SACSS functions. This raises the possibility that there are significant, undiscovered, problems that will appear when the system feature set is fully adopted by users. This possibility further emphasizes the need for a comprehensive test program.

Our specific recommendations can be found at the end of each major section. The recommendations for the most immediate issues are listed below.

1. **The vendor must develop a plan to improve batch performance.**

   Ventura County has experienced serious batch performance problems that result from the batch and forms subsystems design. Since there are thirteen counties with larger caseloads, there is a risk that SACSS will not accommodate these counties. We believe that there are workable solutions to this problem, but the vendor must identify an appropriate solution, and implement it as soon as possible.

2. **Testing procedures must be improved immediately.**

   Every four to six weeks a new version of the applications software is released. Each release contains 300 to 500 changes to the software. This level of change requires a comprehensive series of test processes to ensure the changes are done correctly and that no new defects are introduced. No formal comprehensive test plan exists. We have no assurance that each release has been adequately tested.

3. **The usability of SACSS must be improved, specifically user documentation, training and the user interface.**

SACSS is not easy to use. The number and complexity of the series of input screens is daunting to new users. The system is not intuitive, and user documentation and training have proven to be inadequate. In the short term, there are incremental changes that can be made to improve the screen flow, the help system, and the layout of individual screens. The training program and the user manual must provide guidance, or process-oriented explanations, for the more complex SACSS functions. A plan must be developed to improve the user interface within a schedule acceptable to the counties.

4. Implementation of the Corrective Action Plan (CAP) needs to be carefully monitored.

The Corrective Action Plan now being implemented is essential to the success of the SACSS project. The schedule is very aggressive. There has been significant turnover in the technical management of the project. Several development processes have been changed. Given these many changes to the project, it is very important to monitor the CAP milestones and deliverables for timeliness and quality.

5. Vendor performance should be reassessed in 90 days.

The vendor has made a commitment to significant improvements in the quality of SACSS. This will entail major changes to not only the software, but also the management and engineering procedures. These changes address the fundamental problems with SACSS. It is our opinion that the accomplishments over the next 90 days will provide an objective measure of the ability of the vendor to ultimately deliver a product that meets the needs of the counties.

We propose to conduct assessments in the following areas:

- Conduct a survey of county satisfaction with improvements to SACSS:
  - Formal survey of 23 SACSS counties
- Assess the project's performance in meeting CAP goals and milestones:
  - Defect rate in Release 5.11 and 5.12
  - Content of Release 5.14
  - New defects noted
  - Problems not resolved
- Assess improvements to processes:
  - Testing
  - Quality assurance
  - Configuration management
  - Release management
- Assess improvements to user support:
  - Training
  - User manuals
  - On-line help
- Evaluate plans for resolving:

- Batch performance
- User interface problems

In summation, the SACSS architectural design can meet the functional requirements of child support; however, the number of defects, the overall system performance and the user interface cause serious concern. SACSS has the potential to provide significant benefits to the counties, if, and only if, the project can address the problems affecting county productivity in a timely fashion.

Achieving success in the short term is largely dependent on the successful execution of the Corrective Action Plan by Lockheed/AMS. If the goals and milestones for the CAP and associated efforts are not met, then serious doubts would arise as to whether the vendor will ever complete the SACSS project to the satisfaction of the State and counties.

Achieving and maintaining success in the long term will be dependent upon the planning, with extensive user involvement, and achievement of improvements to system performance and the user interface. The CAP does not directly address the batch performance and user interface issues. These are critical issues to restoring county productivity and increasing acceptance of SACSS, and must be resolved.

ENDNOTES FOR MAIN SECTION (ROMAN)

i. "Is This Any Way to Run a Government?" Los Angeles Times, August 22, 1994.

ii. "Computer work lost millions, DMV admits," San Jose Mercury News, April 26, 1994.

iii. "DMV Spent $44 Million on Failed Project," Los Angeles Times, April 27, 1994.

iv. "Shock Waves from a Computer Fiasco," Governing, August 1994.

v. Report from the Task Force on Government Technology Policy and Procurement, September 1994, pp. I-5 and I-6.

vi. Ibid., Appendix A.

vii. Analysis of the 1997-98 Budget Bill, Report from the Legislative Analyst's Office to the Joint Legislative Budget Committee.

viii. Ibid.

ix. "High-Tech Headache," San Francisco Examiner, February 26, 1995.

x. "California's Child Support Program: Hi-Tech Services Advance," PR Newswire, June 23, 1992.

xi. Ibid.

xii. Quick Look Assessment Final Report prepared by Logicon, February 29, 1997, p. 12.

xiii. Transcript of the Informational Hearing of the Assembly Committee on Televising the Assembly and Information Technology, March 10, 1997.

xiv. "Mothers Pressed into Battle for Child Support," Los Angeles Times, March 24, 1997.

xv. "Glitches Delay Payments for Child Support," Los Angeles Times, December 14, 1996.

xvi. "Delays, Errors Plague Child Support Computer Network," Los Angeles Daily News, February 21, 1997.

xvii. Letter dated February 26, 1997 from HWDC to Lockheed Martin IMS Corporation. See APPENDIX B.

xviii. "Automated System Tracking Child Support Raises Hopes, Fears," Orange County Register, November 27, 1996.

xix. "Problems Plague Computerized Policing of Child Support," Sacramento Bee, February 17, 1995.

xx. Quick Look Assessment Final Report prepared by Logicon, February 28, 1997, p. 32.

xxi. Letter dated February 26, 1997 from HWDC to Lockheed Martin IMS Corporation. See APPENDIX B.

xxii. Ibid.

xxiii. Ibid.

xxiv. Transcript of the Informational Hearing of the Assembly Committee on Televising the Assembly and Information Technology, February 24, 1997.

xxv. Transcript of the Informational Hearing of the Assembly Committee on Televising the Assembly and Information Technology, March 10, 1997.

xxvi. Letter dated April 4, 1997, from DOIT to HWDC.

xxvii. Memorandum from the Department of Information Technology on the status of "Independent Verification and Validation of High-Interest Projects," February 22, 1996.

xxviii. Quick Look Assessment Final Report prepared by Logicon, February 28, 1997.